PROJECT COORDINATOR'S REPORT

अखिल भारतीय बकरी सुधार समन्वित शोध परियोजना

ALL INDIA COORDINATED RESEARCH PROJECT ON GOAT IMPROVEMENT

2017-2018

भा.कृ.अ.प.-केन्द्रीय बकरी अनुसंधान संस्थान, मखदूम फरह, मथुरा उ०प्र०

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All India Coordinated Research Project on Goat Improvement

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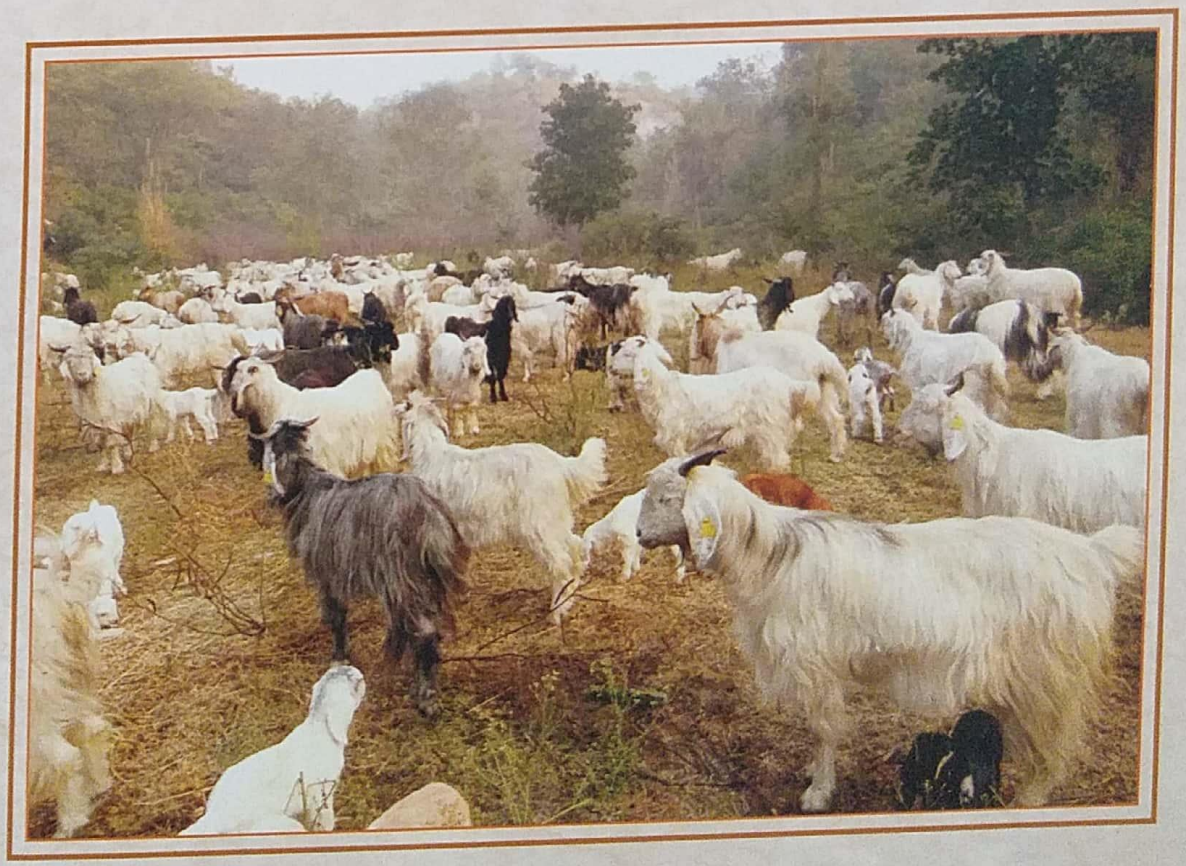
Project Coordinator's Report (2017-2018)



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1. Introduction

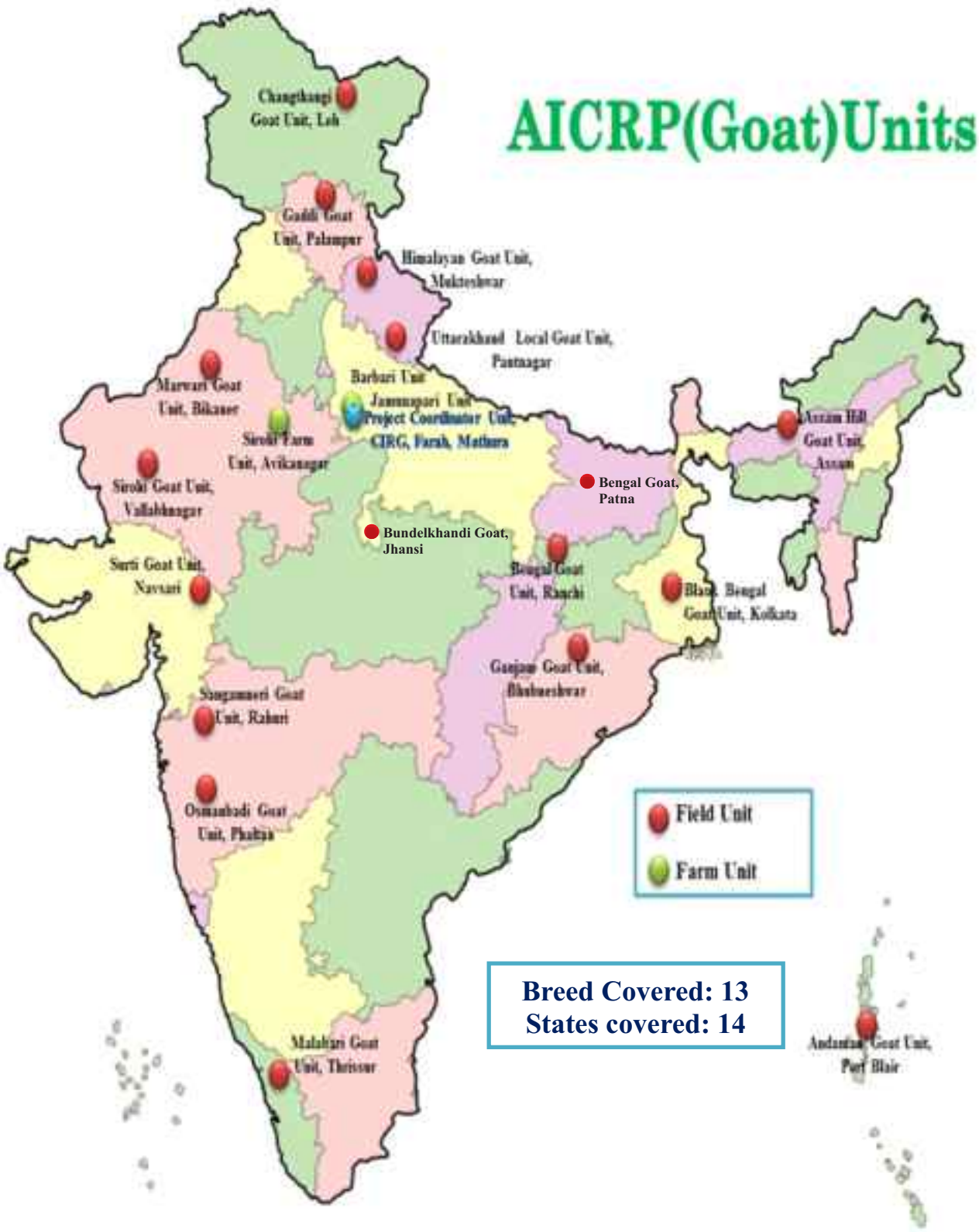
All India Coordinated Research Project (AICRP) on Goat Improvement is designed to enhance the productivity of the goat genetic resources in their natural habitat. The project will enhance the genetic potential of the individual as well as conservation of the population in their natural habitat. Presently AICRP on goat improvement is working with 13 registered goat breeds and five local genotypes. AICRP on goat improvement is also working in three breeds namely Barbari, Jamunapari and Sirohi in semi-intensive system of rearing as farm units.

The details of Coordinating Centre of AICRP on Goat Improvement are described below

Table 1: Coordinating Centers of AICRP on Goat Improvement

S.N.	Centre	Location	TSP/NEH	Purpose
A) Field Units				
1.	Andaman Goat Field Unit	ICAR- CIARI, Port Blair, A & N Island	Island Region	Meat
2.	Assam Hill Goat Field Unit	AAU, Khanpara, Guwahati, Assam	***NEH***	Meat
3.	Bengal Goat Field Unit	BAU, Kanke, Ranchi, Jharkhand	***Partially TSP***	Meat
4.	Black Bengal Goat Field Unit	WBUV and FS, Kolkata, West Bengal	***Partially TSP***	Meat
5.	Changthangi Goat Field Unit	SKUAST, Kashmir, Leh-Ladakh, J&K	***Partially TSP***	Fiber & Meat
6.	Gaddi Goat Field Unit	HPKVV, Palampur, Himachal Pradesh	***Partially TSP***	Meat & Fiber
7.	Ganjam Goat Field Unit	OUAT, Bhubaneswar, Orissa		Meat
8.	Himalayan Local Goat Field Unit	ICAR-IVRI Campus, Mukteshwar, Uttarakhand		Meat
9.	Malabari Goat Field Unit	KV&ASU Mannuthy, Thrissur, Kerala		Meat & Milk
10.	Marwari Goat Field Unit	RAJUVAS, Bikaner, Rajasthan		Meat
11.	Osmanabadi Goat Field Unit	NARI, Phaltan, Maharashtra,		Meat & Milk
12.	Sangamneri Goat Field Unit	MPKV, Rahuri , Maharashtra		Meat & Milk
13.	Sirohi Goat Field Unit	RAJUVAS, College of veterinary sciences & AH Vallabhnagar , Rajasthan	***Partially TSP***	Meat
14.	Surti Goat Field Unit	N.A.U., Navsari, Gujarat	***Partially TSP***	Milk & Meat
15.	Uttrakhand Local Goat Field Unit	GBPUA&T, Pantnagar, Uttarakhand		Meat
16.	Bengal Goat Field Unit	ICAR-RCER, Patna (New Centre)	***Partially TSP***	Meat
17.	Bundelkhandi Goat Field Unit	IGFRI, Jhansi (New Centre)		Meat
B) Farm Units				
1.	Barbari Goat Farm Unit	ICAR-CIRG, Makhdoom, Uttar Pradesh		Milk & Meat
2.	Jamunapari Goat Farm Unit	ICAR-CIRG, Makhdoom, Uttar Pradesh		Milk & Meat
3.	Sirohi Goat Farm Unit	ICAR-CSWRI, Avikanagar, Rajasthan		Milk & Meat
C) Project Coordinating Unit				
1.	Project Coordinator Unit	ICAR-CIRG, Makhdoom, Uttar Pradesh		

Seven units are working as partially TSP unit under Tribal sub plan fund of the project. Assam hill goat unit is also operational in NEH region. AICRP is operational at Leh-Ladakh region of Jammu & Kashmir for conducting research on goats producing Pashmina in temperate climate; similarly, we are also working in Andaman & Nicobar Island. The major thrust of the project is to build up long term capacities of goat keepers through introduction of superior breed bucks, technology transfer, creation of knowledge base, application of health management practices for enhancing production potentials on sustainable basis.



Distribution of 20 AICRP (G) Center all over India covering 13 Goat breeds

1.1 OBJECTIVES & ACTIVITIES OF THE AICRP ON GOAT IMPROVEMENT

The improvement and conservation of animal genetic resources is a long term and continuous activity . The genetic improvement programme should be undertaken through structured and systematic manner specific to the area of evolution of the genetic resource/group through a national policy. The objectives are given below :

OBJECTIVES

1) To enhance productivity of goat genetic resources of the country in their habitat.
2) To develop germplasm resource centers for goat breeds
3) To validate and implement breeding, feeding, and health control technologies in the field for improved goat production and health.
4) Capacity building of stakeholders and goat keepers for sustainable and profitable goat husbandry.
5) To determine the role of goat husbandry in livelihood and food security of goat keepers.

TECHNICAL PROGRAMME ACTIVITIES (2017-2018)

1. The unit will maintain at least five Cluster/centers having at least 100 breedable does under the coverage and the total breedable doe 500 will be covered by each unit.
2. Production system characterization will be undertaken which will include information on production and management practices, population trends, feeding system, disease pattern and socio-economic condition.
3. Body weights from birth to 12 month of age at 3 months interval will be recorded. Milk yield recorded 15 days interval up to 90 days and lactation length. Similarly pashmina fiber recording will be carried till 18 month of age.
4. Each Unit will survey, identify and map the breeding tract of the respective breed and collect baseline data of cluster.
5. For first stage selection, male kids born from genetically superior does will be identified at weaning (3 month of age). Each year fifty selected kids will be purchased for future buck production and will be preferably reared till the age of final selection either with the help of few progressive farmers of the adopted area on cost /benefit sharing basis or at AICRP Unit. AICRP centers will have to evolve suitable mechanism to rear such kids till the age of final selection
6. For Second stage selection of males and females will be made on the basis of 6/9 month body weight and type birth (triplets and twins). For milk yield 90 days milk of the dam be considered for selection criteria.
7. The bucks required for distribution in adopted areas will be given on a minimal book value to registered farmers while others can be sold to other agencies involved in goat improvement for breed improvement. After two to three breeding seasons, bucks will be either rotated amongst clusters to avoid inbreeding or sold outside of adopted area for breed improvement.

8. Semen of few selected bucks from each collaborating unit will be collected and preserved by establishing semen banks. Preferably in collaboration with semen bank available at university/ NBAGR, Karnal
9. The improvement of body weight, milk yield and reproductive performances of the progeny will be estimated over the years/generation
10. Awareness programme, Gosthi meeting and training programmes will be conducted.
11. Improvement of body weight and milk yield by 1% per generation in village flocks.
12. Capacity Building of community goat keepers (approx. 200 per year) with exposure visit (5 per year).
13. The animals for performance studies would be selected from farmer's flock under existing transhumance (migratory) system. For this, about 450 animals from three centers/ migratory routes in different areas from different flocks would be selected and reared under existing management system in collaboration with the farmers. (Gaddi, Changthangi, Ganjam only)
14. Based on disease profile, units will prepare Annual Prophylactic Health Calendar to prevent morbidity and mortality. Necessary vaccines/drugs will be purchased from project fund.
15. Efforts will be made to form goat breeder/cooperative societies/ self-help groups.
16. Identification of animal and providing insurance cover to females above six months
17. Documentation on price trend for live goats and goat products viz. meat, milk, skin, hair and manure and preference of consumers
18. Deworming of goats is to be generally carried out at the end of the monsoon. The FAMACHA method need to be standardized in their environment to assess the degree of anemia and only those animals with scores >3 should be dewormed. Additionally, the dewormer should be changed every year to avoid development of anthelmintic resistance.
19. The selected breeding bucks should be provide to buck keeper with agreements the buck keepers to ensure that the bucks are looked after well. The maintenance charges of bucks should be recovered by charging a fee for buck service. The bucks should be insured.
20. Exchange of breeding males across clusters and villages should be carried out.
21. Organize animal competitions with wide publicity to identify outstanding animals from a larger area. A competition to be held to identify superior male and female by organizing a competition with suitable prize.
22. Record and discuss selection criteria / practices followed by farmers/ buck owners..
23. Organization of workshop in goat production, value addition, marketing and other related activities for all stakeholders.
24. Complete feed development may be demonstrated to farmers basing on local feed fodder resources.

ACTIVITIES (2018-19)

1. All the above activities will be continued.
2. Precision on data recording.
3. Semen repository of elite male and female.

4. DNA repository of improved male (50) & female (50). (DNA Isolation will be carried out by CIRG after collecting samples from each unit and DNA repository bank will be established at PC Unit.)
5. Milk casein genotyping of improved bucks and high yielding females. (Genotypic will be carried out by CIRG after collecting samples from each unit.)

ACTIVITIES (2019-20)

1. All the above activities will be continued.
2. Develop a model farmer demonstration unit in each cluster.
3. Create a data base of owners of superior animals and make it available to relevant State govt. authorities so that they can purchase bucks from them on preference for distribution under government schemes.
4. Efforts will be made to form goat breeder's society's cooperative societies and to register the goat flocks in the breeding tract of the respective breeds.
5. Establishment of market linkages with help of NGOs.

Deliverables of the Project (2017-2020)

Measurable Activities	2017-18	2018-19	2019-20
Selection of clusters & farmers and Registration of adult doe **(No. of animals)**	28000	28500	29000
Animal Identification, pedigree and performance recording **(No. of animals)**	15500	16500	17500
Selection of male kids and distribution for breeding purpose **(No. of animals)**	300	320	350
Health Coverage with vaccination and deworming etc. **(No. of animals)**	30000	32000	34000
Capacity building of goat keepers and stake holders **(No. of trainings)**	60	65	68
Semen doses cryo-preserved for in situ / ex situ conservation of important breeds **(No.)**	1500	1600	1700

1.2 ACTION TAKEN REPORT ON

Major Recommendations of the XVII Annual Review Meet of AICRP on Goat Improvement at High Mountain Arid Agriculture Research Institute, SKUAST-K, Leh – Ladakh – 194101 on June 12-13, 2017

S. No.	Recommendations	Action Taken (Please quantify your Details)
1	It is necessary to develop mission mode programme on knowledge based goat farming, database development in different aspects of goat production and developing value chain on goat production. The output of the project need to be reflected as research papers, technology development and adoption of technology. The funding source (AICRP) should be acknowledged for each publication, patent and product.	➢ Technology development & standardization is being carried out each unit : **15** ➢ No of research paper published: **19** ➢ Leaflets: **24** ➢ Success stories: **9** ➢ Technology standardization **:20** ➢ Technology adoption: **15** ➢ Patent : **Nil**
2	Milk nutrient profiling of all breeds should be carried out in collaboration with CIRG.	Milk protein profiling of Jamunapari, Barbari, Sirohi, Gaddi, Black Bengal (Ranchi), Sirohi (Udaipur) and Ganjam & goats were carried out
3	It is necessary to estimate genetic gain over the years and flock productivity. Moreover, estimation of genetic parameters and selection differential should be carried out.	Data file for flock productivity has been finalized for all units. It will be analysed.
4	Milk yield should be recorded in each breed as it is essential for survival of kids and also to assess milk production status and potential of each breed. Milk yield should be recorded in kilogram rather than litre. The formula for milk yield calculation needs to be provided by the PC Unit.	Followed & milk yield calculation formula provided to each unit.
5	It is necessary to quantify the effect of technological intervention & how much each intervention is contributing towards income generation and sustainable goat production.	A method will be devised to quantify the effed of technological integration & its contribution towards income generation. Some units have calculated the details of income generation.
6	Standard operating procedure (SOP) for data recording on growth & milk yield needs to be defined. Goat Cooperatives should be formulated for more income, genetic improvement and horizontal dissemination of technologies among goat keepers.	The SOP has been proposed and will be circulated to all the stakeholders.

7.	FAMACHA for all the units should be developed.	Units are developing the test and will be followed after validation
8.	Artificial insemination with fresh and frozen semen on experimental basis should be conducted at the places where facilities are available.	The following units are taking up the work in this direction: Osmanabadi, Sangamneri, Gaddi, Malabari, Sirohi(Udaipur) and three farm units.
9.	Establishment of multiplier flocks for genetic improvement should be encouraged and popularized.	No of multiplier flock CIRG: 12 Sangamneri, Malabari, Assam Local Goat & Black Bengal Units have established multiplier flock Total 591 Buck distributed / exchanged among field flocks of different clusters by 15 units.
10.	Manpower pattern should be uniform in all the units and at least one data enumerator for one village should be appointed on contractual basis. The remuneration for enumerator will be Rs. 10,000/-per month or as per minimum rate fixed by respective state government. Direct e-transfer should be encouraged, while paying the dues and working personal in the project.	This is being followed by all the Units.
11.	Reporting to PC Unit should be carried out regularly within the time frame. Hard copy of published research papers, patent information and product details should be provided by each unit to PC Unit at CIRG.	The response from units not satisfactory. Surti Unit did not provide any information during the year.
12.	Publication with respect to package of management practices should be completed by all the units during this year.	Followed by all the units.

1.3(a) SALIENT RESEARCH ACHIEVEMENT (2017-18)

Goat production is facing diverse challenges in different agro climatic condition and it is necessary to carry out research and development activity to increase farmer's income for better livelihood. The project is covering 13 registered breeds and 4 local genotypes (lesser- known goats). The project has contributed in increasing population growth, milk production and body growth. Preventive health care measures with farmer's support have reduced morbidity and mortality in field flock. There is significant increase in income of goat farmers and enhanced food security of all stakeholders.

I. AICRP on Goat Improvement is operational at 461 villages covering 2853 farmers. The performance recording was carried out in 50823 animals during the year.

ii. The average pashmina production of Changthangi goats was 269.66 gram.

iii. The farm based units namely Jamunapari, Barbari and Sirohi are working as best model for *in-situ* conservation in the natural home tract of the breed.

iv. Preventive health care was provided to 117001 animals. The health care is being taken up sincerely in farmer's flock indicating that the mortality rate varied from 3.8 to 7.9%. This has not only contributed for increasing population growth but also improving the farmer's income by 30%. A higher population growth amongst breeds resulted into increased selection intensity, thus realized genetic gains could be high.

v. Farm unit have significantly produced and distributed more than 499 improved animals to different agencies for breed improvement as well as up-gradation of local germplasm.

vi. The field units also distributed 591 improved bucks to adopted farmers for genetic improvement.

vii. AICRP units conducted 88 training programme for skill development of goat farmers and about 4500 farmers participated in various training programmes.

viii. Producing technical literature & seasonal advisory for goat farmers to impart better known- how to manage their flocks during the year.

ix. Identification of elite doe producing more than 200 litres of milk in 140 days in different units.

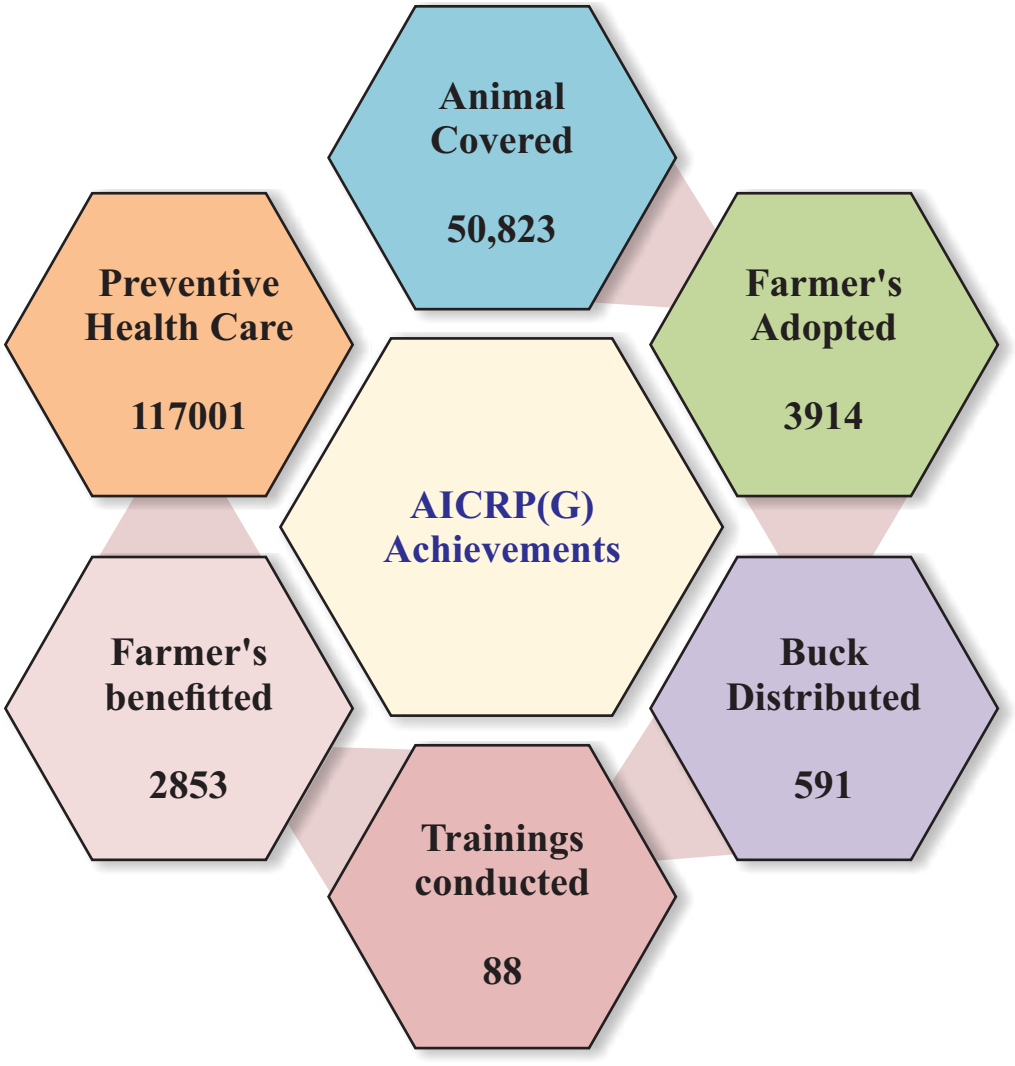
x. Goat Production Management Information System (GMIS) is a database for an efficient and effective data recording, data analysis, monitoring & evaluation. The website is hosted and currently running with URL "http://pcgoatcirg.icar.gov.in/". GMIS includes 13 basic module i.e. inventory, Growth, Milk yield, Reproduction, Health management, Buck distribution, Finance, Staff, GIS, Capacity building, Upload & View data with various sub-modules. The unit incharges can regularly update their status as per the feedback received from 18 coordinating units of AICRP on Goat Improvement.

xi. Different units have produced 3 technical leaflets/booklets on different managemental practices.

xii. AICRP on Goat Improvement has bagged Breed survivor recognition for Malabari, Jamunapari and Surti.

xiii. Working in 13 tribal villages and contributing for a better livelihood in the tribal region. Goats as major source of income generation to poor people in Tribal areas and NEH region. The technical inputs have contributed in different aspect of goat production and increasing the income of goat farmers.

xiv. Technological interventions under the project have benefited more than 2624 goat rearing families in different units over fourteen states of the country. It has provided average employment ranging from 80 to 140 man days and has improved income of farmers significantly in different units.



The overall achievement for the project during 2017-18

1.3 (b) Details of Farmer Centric Distribution

Products / Units									OTHER DAILY REQUIREMENTS						
															
	Led Torch	Shoes	Mosquito net	Water Bottle	Umbrella	Feeding bottle	Mineral Mixture	Herbal Tickicide	Fodder cutting machine	Feeder	Bicycle	Bags	Tarpaulin	Weighing Balance	Measuring Tape
Andaman Local Goat Unit	0	0	0	0	0	**0**	**2334**	**15**	225	157	0	0	0	0	0
Assam Hill Goat Unit	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
Bengal Goat Unit, Ranchi	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
Bengal Goat Unit, Kolkata	0	0	**74**	0	**74**	0	0	0	0	0	**0**	0	**0**	0	0
Changthangi Goat Unit	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
Gaddi Goat Unit	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
Ganjam Goat Unit	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
Himalayan Local Goat Unit	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
Malabari Goat Unit	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
Marwari Goat Unit	0	0	0	0	60	0	0	0	0	0	0	0	**0**	0	0
Osmanabadi Goat Unit	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
Sangamneri Goat Unit	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
Sirohi Goat Unit	485	0	0	**197**	120	0	60	0	0	0	0	0	0	0	0
Surti Goat Unit	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
Uttarakhand Local Goat Unit	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0

Progress under Tribal Sub –Plan (TSP) components (2017 – 18)

Name of the Unit	No. of Farmers registered	No. of Goats Registered	Physical Achievement during the Quarter			Supply of Inputs			Amount ear marked for TSP (Rs. in Lakhs)	Financial Achievement during the quarter (Rs. in Lakhs)
			Name & No. of trainings Organized	No. of farmers participated	Frontline demonstration /exhibitions/ Exposure visits	Germplasm supplied	Preventive measures (in terms of medicine)	Feed & Mineral mixture supplied		
Bengal Goat Unit, Ranchi	50	21	02	50	03	21	Vaccine	55 Kg.	2.49	2.10
Black Bengal Goat Unit, Kolkata	74	136	02	74	10	18	1571	775	1.87	1.87
Changthangi Goat Unit	37	15538	8	231	8	4 bucks	Medicines and vaccines for Rs 1.5 Lakh	50 Min Mix	1.87	1.87
Gaddi Field Unit, Palampur	14	125	2	27	03	27	650 animals	Feed 8 Qtls. Mineral Mixture -150 kg	2.49	2.40
Sirohi Field Unit, Vallabhnagar	38	493	02	60	02	11	Vaccine : 1472		1.30	0.76
Surti Field Unit, Navsari	29	--	04	111	1499	28	Undertaken by AH Dept.	--	2.48	2.48

DETAILS OF ANIMAL DISTRIBUTION, TRAINING PROGRAMME AND PUBLICATION OF AICRP UNITS DURING 2017 – 18

S. no.	Breeding Units	Total Animal Sold	Adult Male sold	Adult Female sold	Buck Distribution	No of trainings	No of does available	Publications
1	Andaman Local Goat Unit	386	06	12	16	2	922	2 leaflets
2	Assam Hill Goat Unit	578	111	89	48	14	1246	2 success story and 4 leaflets
3	Bengal Goat Unit, Ranchi	1640	296	479	33	4	2638	1 success story
4	Bengal Goat Unit, Kolkata	753	231	248	25	6	1103	3 Publication +2 abstract +4 leaflet+1 booklet
5	Changthangi Goat Unit	1119	378	234	19	9	3775	3 leaflets+4 success story
6	Gaddi Goat Unit	430	05	148	27	1	733	-
7	Ganjam Goat Unit	1017	240	228	4	2	2034	6 leaflet+2 publication
8	Himalayan Local Goat Unit	336	107	105	2	1	153	1 leaflet+ 2 abstract
9	Malabari Goat Unit	364	35	54	25	9	1007	3 leaflet+8 publication+ 6 technical paper
10	Marwari Goat Unit	2754	23	63	58	10	1787	-
11	Osmanabadi Goat Unit	513	10	76	15	9	510	-
12	Sangamneri Goat Unit	1030	498	89	47	7	4341	1 literature+1success story+4 abstract+2 publication+2 lead article+1 training manual
13	Sirohi Udaipur	576	151	177	151	4	973	-
14	Surti Goat Unit	74	37	37	33	6	158	2 publication +1 training Manual
15	Uttarakhand Local Goat Unit (Pantnagar)	926	137	161	88	4	682	-

	Farm Units							
1	Barbari goat farm unit	232	94	110	-	Nil	265	6 research papers
2	Jamunapari	169	90	79	-	Nil	235	2 research papers
3	Sirohi Goat Unit	98	75	55	-	Nil	274	1 leaflet+1 success story

Details of improved animals supplied for breed improvement programme

Farm Unit	Animal sold 2017 - 18	Adult Male sold	Adult female sold
Jamunapari goat farm unit	169	90	79
Barbari goat farm unit	232	94	110
Sirohi goat farm unit	98	75	55
Total	**499**	**259**	**244**

2.0 RESEARCH ABSTRACT FOR THE YEAR 2017-18

1. Andaman Goat Field Unit, ICAR-CIARI, Port Blair, Andaman & Nicobar Island

Andaman goat field unit is operational at ICAR-CIARI, Port Blair. The unit is operational in 3 clusters such as Port Blair, Baratang and Nimbudera. The closing balance of the registered flock was 3355 goats in the entire three clusters of which 2058 are female and 1297 are male goats. The population growth was 108.3% during the year. During the period 1041 kids were born. A new cluster has been established in Nimbudera at North & Middle Andaman District. The overall least squares means of body weights at birth, 3, 6, 9 and 12 months of age are 1.43±0.01, 5.64±0.02, 9.68±0.04, 13.26±0.03 and 16.56±0.03kg, respectively. Least squares means of milk yield in 30, 60, 90 and 140 days were 432.4±10.96, 403.0±10.75, 358.7 ± 11.74 and 319.±11.43mL, respectively during the year 2017-18. The selection differential for selected kids at 6 months body weight was found to be 1.3 kg and intensity of selection was observed to be 2.08. Age at first mating, weight at first mating, age at first kidding, weight at first kidding, kidding interval, service period and gestation period were 252.65±0.72 days, 11.71±0.18 kg, 407.53±2.86 days, 16.38±0.09 kg, 273.55±1.21 days, 98.69±1.46 days and 146.29±0.26 days respectively. The kidding percentage of 153.77 per cent on the basis of does kidded and the kidding rate of 1.54 were recorded in the present stock of Andaman local goats. The percentage of singles, twins, triplets were 36.02, 62.24 and 1.72, respectively during the period. The mortality for the period has been reduced to 3.59% from 8.60%. The weaning weight of the goat kids were increased from 5.91 kg to 6.02 kg. Abortion problems were also reduced from 4.2% to 3.2%.

A total of 16 superior breeding bucks and 01 adult does were distributed in different villages for upgradation of the Andaman local goats in the adopted villages. A total of 68 new farmers registered in both cluster and 427 new goats were added. During the year, 2 training programmes, 5 awareness programmes, 2 exposure visit and 2 health camp were conducted in which 234 farmers participants were from different villages of all the clusters. Two extension leaflets in Hindi language were prepared for distribution to the farmers. The overall economic growth of the farmers is 52% after the intervention of the project and the net income from per doe productivity has been enhanced to 38.42 %. Most of the selected farmers has increased share of goats income to the total family income.

2. Assam Hill Goat Field Unit, AAU, Khanpara, Guwahati, Assam

The unit is operational at AAU, Khanpara & unit has 5 cluster such as Batabari, District Darrang, Tetelia Gandhinagar, District Kamrup (Metro), Nahira, District Kamrup (Rural), Tepesia, District Kamrup (Metro) and Digholbori, District Morigaon and has population of 2785 goats during the year. The population growth of 97.47% was observed in the adopted villages. 524 adult does have given birth to 829 kids. The initial growth rate at the time of implementation of the project in the year 2009-10 was recorded as 14.22%. The rate of mortality during the reported period was 7.50%. About 643 goats were sold by the beneficiaries. A total of 578 animals and 101 culled animals were sold by the registered farmers with a total income of Rs.11, 93,408.00 indicating an annual income of Rest. 3,938.00 per house hold. Twenty one selected bucks were distributed to the

field units and the 27 numbers of existing bucks were exchanged among the units to avoid inbreeding. The overall least squares means of body weights (kg) at birth, 3, 6, 9 and 12 months of age were 1.24±0.01, 5.29±0.02, 8.03±0.04, 10.73±0.06 and 13.94±0.09. The least square means of milk yield in 30, 60 and 90days were 3.80±0.17, 6.63±0.40 and 11.45±0.97 liter respectively. The kidding rate was 1.58. The singlet, twining, triplet and quadruplet percentage for the period under report have been recorded to be 48.28, 46.18, 4.58 and 0.95% respectively. There are 48 numbers of superior bucks in the five field units distributed under the project AICRP on Goat Improvement. The AICRP on Goat Improvement was successful enough to create awareness among the goat farmers through several extension activities like meeting, interactive sessions, training etc. Fourteen awareness cum training camps have been organized in the field units throughout the year 2017-18 for augmenting the knowledge on goat rearing.

3. Barbari Goat Farm Unit, ICAR-CIRG, Makhdoom, Uttar Pradesh

Barbari breed of goat has attained special significance as a meat breed due to higher weight gain, prolificacy, reproductive efficiency, and most importantly suitability for stall feeding. Nucleus flock of these goats is maintained under semi-intensive feeding system from 1983 as Institute flock and from 1993 under AICRP on Goat Improvement. The closing and balance of flock was 712. The population growth of goats was 143% in current year. Three hundred two goats were provided to farmers, multiplier flock and other stake holders. Overall mortality of the flock was 3.1%. Least squares means for weight at first service, age at first service, weight at first kidding and age at first kidding, first kidding interval & gestation period were 18.6±4kg, 351±15 days, 22.7±6.7 kg 611±10 days, 212±11 days and 146±0.43 days, respectively. Breeding efficiency on the basis of doe's available and doe's tupped were 93.5% and 96.7%, and kidding% on the basis of does available and doe's tupped were 121 and 112%, respectively. Kids born as multiple births year were 63.5% of total kids born. The kidding rate (liter size) was 1.47. The least squares means of body weight of kids at birth, 3, 6, 9, and 12 month of ages for kids born in year 2016 were 1.81±0.01, 7.56±0.08, 12.41±0.11, 16.80±0.15and 21.25±0.18 kg, respectively and birth, 3, 6 and 9 month body weight for 2017 kidding's were 1.87±0.01, 8.47±0.08, 13.06±0.19 and 17.47±0.21 kg respectively. There was improvement in body weights over previous year. The h^2 estimates for body weight of kids at birth, 3, 6, 9, and 12 month of ages were 0.106±0.045, 0.230±0.073, 0.210±0.070, 0.267±0.077 and 0.171±0.066 in the flock. The heritability estimated by animal model was moderate (0.12 for birth weight to 0.19 for 12 month body weight). The highest feed conversion efficiency was obtained during birth to 3 months and thereafter relative decline in ADG during 3-6 followed by 6-9 months growth ages. Least squares mean for 90 days milk yield, 140 days milk, total lactation yield and lactation length in 2017 were 62.4±3.7, 80.6±1.6, 77.6±4.3, 133.8±5.1, respectively. There was a significant improvement in lactation performance. Goats kidded in spring season (Feb-March) delivered significantly higher milk yield as compared to those which kidded in autumn season. The estimates of h^2 for MY 90, LMY and LL were 0.142±0.131, 0.109±0.108, 0.106± 0.109 and 0.309±0.115 respectively. The selection differential for 9 months body weight was 6.08 kg and that of the dam's 90 days milk yield was 20.3 liters. There were 16 multiplier flocks and 22 consortium flocks of Barbari goats were created for genetic improvement, conservation and promoting

scientific goat farming, development of goat based business and livelihood models in five states of India. The net profit per goat was ranged from Rs 4700 to 9600/year with an average of Rs. 5625. The major contribution of the project has been in sustainable growth for genetic improvement, conservation of breed at farm and in home tract, technology development, package of management practices for different categories of farmers in different agro-climatic conditions, livelihood and agri-business models development.

4. Bengal Goat Field Unit, BAU, Kanke, Ranchi, Jharkhand

The unit is operational at BAU, Kanke, Ranchi and Jharkhand. The closing balance of flock was 4368 in which 1701 was males and 4282 was females. A total of 2292 kids were born and 906 kids were castrated at centers during the year 2017-18. The population growth was 164.46%. The mortality rate was 1.14 during the year. A total of 01 buck and 20 Does (on the basis of growth and multiple births) were purchased from different centers and distributed among 10 farmers under TSP program. 33 New Bucks distributed among the farmers at four centers of the project and also exchanged from one Centre to others to avoid inbreeding. Selection differential of male at 12 month of age were estimated to be 2.09 kg. The overall means of body weights at birth, 3, 6, 9 and 12 month of age were found to be 1.50 ±0.12, 6.30±0.05, 8.91 ±0.18, 11.30 ±0.14, and 13.90±0.49 kg respectively. The phenotypic correlation at 3, 6, 9 and 12 month of age were 0.286± 0.08, 0.152±0.15, 0.442±0.60 and 0.380±0.14 respectively. The overall reproductive parameters of Black Bengal goats viz. age at first mating, body weight at first mating, age at first kidding, weight at first kidding, service period, kidding interval and gestation period were 268.90 ± 0.08 days, 11.80 ± 0.29 kg, 416.79 ± 0.79 days, 12.00 ± 1.01 kg, 68.00 ± 0.62 days, 215.89 ± 0.76 days and 147.28 ± 0.12 days , respectively. The milk yield at 30, 60, and 90 days was 7.5, 13.2, and 16.50 liter, respectively.

Kidding rate (litter size) of Black Bengal goat was 1.89 with 170% kidding. Pro-poor goat based technology developed by the Ranchi Veterinary College, BAU were being used by the farmers extensively. All the goats in coverage areas were vaccinated with PPR (3750 goats), dipping (3352 goats) and deworming of 3945goats have been done. Due to timely intervention mortality has come down to 2.66% Training on 'Scientific Goat Rearing' was organized in which 50 Tribal farmers in two batch of Tribal Village Champadih (Chanho) under TSP programme and One Exposure Visit of Tribal Goat Farmers. Two exposure visits of 40 farmers from different centers were organized and 40 farmers from different centers has visited Kisan Mela AGROTEC 2018. 38 farmers have attended ten days training on Goat Farming.

5. Black Bengal Goat Field Unit, WBUV and FS, Kolkata, West Bengal

The Black Bengal unit is operational at West Bengal, Veterinary University, Kolkata. The unit is operational at 5 cluster such as Ayeshpur and Ganguria (Nadia cluster), Jatirampur and Rangabelia (Sundarban cluster), Bamunia and Beliapukur (Murshidabad cluster), Lodhasuli (Jhargram cluster) and Purba Mallickpara (Dhupguri cluster). At present there are 1162 registered does from 644 farmers in five clusters.

A total of 1355 kids were born from 719 kidding during 1st April 2017 to 31st March 2018. The closing flock strength was 2885 during 2017-2018. The population growth rate of Black Bengal for 2017-18 is 244.20%. The average flock size of Black Bengal in adopted area was 5.94 during 2017-18. The average body weight at birth, 3 month, 6 month, 9 month and 12 month were 1.318 ± 0.007 kg, 5.434 ± 0.038 kg, 7.735 ± 0.044 kg, 10.850 ± 0.049 kg and 13.488 ± 0.056 kg, respectively during 2017-18. Black Bengal doe have a capability to let milk on an average 3.482 ± 0.037 Kg, 6.760 ± 0.056 Kg, 9.063 ± 0.083 Kg and 10.144 ± 0.100 Kg of milk in 15 days, 30 days, 45 days, and 60 days respectively. Significant increase in milk production in different period has been recorded in 2017-18 i.e. 15 days, 30 days, 45 days, and 60 days milk yield as well as total lactation yield as compared to the previous years.

The average lactation length was 60.80 ± 0.26 days and by that period they able to produce 10.335 ± 0.105 Kg of milk. Significant increase in milk production in different period has been recorded in 2017-18 i.e. 15 days, 30 days, 45 days, and 60 days milk yield as well as total lactation yield as compared to the previous years. During 2017-18 the average age at first mating/service and 1st kidding were recorded as 253.02 ± 5.69 days and 401.54 ± 5.69 days, respectively. The average service period, gestation period and kidding interval was 88.25 ± 4.65 days, 148.05 ± 0.14 days and 236.13 ± 4.66 days during 2017-18. The kidding rate (litter size) was 1.89 in 2017-18. With the intervention of health care, the overall mortality in the flock has been restricted to 6.55 % in 2017-18. Animals sold by the farmers have been increased and it was estimated as 20.70% in 2017-18. The average annual income from goat rearing per farmer also has been increased from previous year. The average heart rate of for kids and adults Black Bengal goats has been recorded in three seasons as 111.35 ± 0.56 and 84.32 ± 0.82 per minute, 110.14 ± 0.54 and 84.75 ± 0.79 per minute, 109.24 ± 0.52 and 83.10 ± 0.76 per minute, respectively during summer (April to July,2017), monsoon (August to November'2017) and winter (December'2017 to March'2018). Doe productivity was evaluated based on doe productivity index. The doe productivity of Black Bengal goat was 1.08doe/year. Breeding value of Black Bengal goat was estimated for 3 and 6 month weight. The average respiration rate for kids and adult Black Bengal goats were recorded as 61.84 ± 0.46 and 53.26 ± 0.64 per minute, 61.65 ± 0.34 and 51.99 ± 0.47 per minute, 61.88 ± 0.35 and 52.18 ± 0.49 per minute respectively during summer (April to July,2017), monsoon (August to November'2017) and winter (December'2017 to March'2018). The income per doe is Rs. 3274.00 which is also increased than that of previous year (Rs. 2861.00 in 2016-17).

6. Changthangi Goat Field Unit, SKUAST, Kashmir, Leh-Ladakh, Jammu &Kashmir

The unit is operational at HAMARI, SKUAST, Kashmir, Leh-Ladakh and unit is operational at 3 clusters such as Khanak, Samad and Karzok**.** The main objective was to improve pashmina fibre and meat production. The closing balance as on 01.04.2017 was 13489. The overall population growth for this year was 58.51 % as compared to last year. The average body weight at birth, 3 month, 6 month, 9 month and 12 month were 2.46±0.23 Kg, 6.32±0.27 Kg, 9.45±0.19 kg, 12.98±0.18 Kg and 16.08±0.21kg, respectively. The average pashmina production of all the three clusters for the year was recorded as 275 ±12.54 g. The number of does available for breeding

purpose, for the year 2017 was 3165 out of which 2654 does kidded. There was 2646 single born and 8 twinning. The overall kidding percentage among the registered goats in all the 4 clusters was 82.80% with an overall litter size of 1.00. The age at first mating (in days), weight at first mating (in Kgs), age at first kidding (in days) and weight at first kidding (in Kgs) was recorded as 546.75±14.23, 21.85±1.21, 701.18±1.18 and 24.17±0.11, respectively. During the year, the overall mortality rate was recorded as 6.7%. The unit has developed silage for the first time in Ladakh using locally available ingredients *viz*. alfa-alfa, wheat straw, dried tree leaves, molasses, etc. for feeding livestock during scarcity. The compost making from goat manure has been done successfully at farm for the last two years. The genetic diversity among the different sub population of Changthangi goat was done covering different areas of Ladakh like Kargil, Nubra, Leh and Changthang (home tract) using 15 highly polymorphic microsatellite marker recommended by FAO for goats. The result shows that the Changthangi Goat has a highly diverse population with no bottle neck issues in the past, further the genetic identity and genetic distance as analysed and reported under this study will act as a guide for formulating future breeding programmes in this goats. More than 50 different pasture grasses were collected from the pasturelands of Kharnak, Samad and Korzok clusters and sent for identification. Till date around 36 pasture grasses are identified and reported in Changthang. The unit has constructed 3 silo pits at HMAARI Stakna for introducing high energy silage feeding in Changthangi Goats during winter season. This year only 4 improved bucks could be distributed to the farmers.

7. Gaddi Goat Field Unit, HPKVV, Palampur, Himachal Pradesh

The unit is operational at college of veterinary science, HPKVV, Palampur, Himachal Pradesh. The unit has 5 clusters at Chamba, Kangra, Kullu, Bilaspur and Mandi. The opening balance as on 01.04.2017 was 1152 goats including 705 breedable does. During the year, a total of 560 young kids were added in selected flocks. The total 116 animals died and 430 animals were sold by the owners. The closing balance as on 31.03.2018 was 1166. The least squares means during the year under report for body weights at birth, 3 month, 6 month, 9 month and 12 months of age were 3.12±0.07, 15.31±0.14, 19.67±0.15, 24.71±0.18 and 27.85±0.37 Kg., respectively. There were significant effects of sex of kid and years were observed on body weight at different ages. The overall body length, body height and body girth at birth was 32.11, 33.14 and 35.83 cm, respectively. The corresponding figures at six months were 62.90, 62.11 and 65.67 cm and at twelve months 66.18, 62.96 and 74.50 cm, respectively. The milk yield at 30, 60 and 90 days were 27.53, 50.66, and 64.78, respectively

For breeding inputs, a total of 40 male kids of 4-6 months age group were purchased from farmer's flocks after primary selection on the basis of morphological characteristics and higher growth rates. These male kids were then transferred to Palampur center for subsequent rearing up to the age of sexual maturity, following all standard management practices. After final selection, a total of 27 males were finally distributed to 27 different farmers as a breeding input. In addition, 41 male kids were also purchased during March, 2018 and are being reared at Palampur center for further distribution as breeding buck to the farmers during 2018-19. All selected animals were provided health coverage under migratory field conditions viz. vaccination against PPR (2000 doses), de-

worming against endo-parasites after fecal sample analysis (1655 animals), periodic health check-ups etc. Strategic supplementary feeding was also provided in the form of mineral mixture (300 Kg) and concentrate feed (53 Qtls.). Collaboration with state Animal Husbandry Department was ensured while providing health coverage and other related activities. The overall population growth was observed to be 105.28%. The overall mortality incidence was found to be 6.78%. The incidence of twin birth recorded was 18.39%. The overall abortion incidence in the flocks was observed to be 5.81%. The kidding percent of the flocks were observed to be 67.09. Maximum kidding was recorded in the month of October (120 kids) and November (128 kids).

8. Ganjam Goat Field Unit, OUAT, Bhubaneswar, Orissa

The unit is operational at Orissa veterinary college, Bhubaneswar, OUAT. The unit is operational at 3 cluster such as Chhatrapur, Rambha and Khallikote with a total of 58 registered farmers with addition of a new cluster at Jeerabadi, Bhanjanagar where a total of 20 new farmers have been registered taking the total number of the farmers to 78. This year survey has been initiated towards southern part of Odisha to initiate one more cluster at Surada area. Baseline information on distribution, prevailing management practices, production, reproduction and socio-economic profile of the farmers have been collected, analyzed and reported to P.C. unit from time to time. The population growth over the year was 68.9%. The overall means of body weights of goats were 2.51±0.02, 7.77±0.010, 9.95±0.11, 14.52±0.12 and 18.44±0.16 kg for weight at birth, 3 month, 6 month, 9 month and 12 month of age respectively for the year 2017-18. The phenotypic correlation of body weight were significant ($P<0.05$) at 9 and 12 month of age. The improvement in body weights at 9 month age and one year age has been 2.64 kg and 5.99 kg, respectively. The number of kids born was 1707 from 1994 breedable does from all the three centers of Chhatrapur, Rambha and Khallikote with kidding percentage of 85.7. Kid mortality is controlled around five to six percent over the years and it is 6.08 percent during the period. Milk recording of Ganjam goats were initiated at three centers from 19, 20 and 10 does of Chhatrapur, Rambha and Khallikote center, respectively. The average milk yield of Ganjam goats at 30 days and 60 days were 8.035 ± 0.22 and15.54 ± 0.41 kg respectively. A total of 6630 vaccinations were carried out against PPR, Enterotoxaemia, goat pox and FMD and 9200 deworming dosages were administered. The health coverage programme is routinely carried out. Pedigree recordings were being done for the 51 breeding bucks and birth weights of 786 progenies, weight at three months of 229 progenies and weight at 6 months of 168 progenies, Weight at 9 month of 52 progenies and weight at 12 months for 37 progenies were recorded. Exhaustive base line survey is being undertaken in the old and new cluster as well covering the villages Chadhiapalli, Gereda, Gramadebati, Sasana, Sisunda, Kepiti, Khetamudali, J Prasad, Jhadabhuin and Pochalundi. The farmers at the nearby villages who are interested were also sensitized about goat rearing and are encouraged to join the project. A total of two farmers' training programme were organized at Jeerabadi and Rambha on 29th March and 30th March 2018 respectively where a total of 100 farmers of each clusters were trained on scientific goat rearing practices. Young bucks 3-4 years of age having average superiority of at least +2.5Kg higher body weight than the average of the flock at 3 month stage were purchased and being reared at farmers

herd. One page Oriya pamphlets developed each for Contagious Ecthyma and CCPP in addition to the pamphlets on PPR, Goat pox and Foot Rot and were distributed to the farmers.

9. Himalayan Local Goat Field Unit, ICAR-IVRI Campus, Mukteswar, Uttarakhand

The unit is operational at IVRI, Campus, Muketeswar, Uttarakhand. The unit is operational at Lamkot, Khola Gandhak, and Jur cluster. The objective to improve the local Himalayan hill goats (Chaugarkha) at Kumaon hills of Uttarakhand. These goats are mainly reared by small and marginal farmers for meat purpose. Three clusters namely, Lamkot of Lamgarha block, Khola and Gandhak of Dhauladevi block and Jur Kafun village of Hawalbagh block in Almora district have been adopted after surveying the its breeding tract and distribution. Khanara village of Lamgarha block of Almora district has also been surveyed. Total forty seven farmers have been registered and 153 adult breedable does were maintained in these clusters as well as 139 kids were also included in clusters. The population growth was 53.55 % during the year. The morphometric characters of these goats were measured. The average male body weight at 6, 9 and 12 months of age are 13.97±0.8, 17.035±0.97 and 20.95±0.58 kg, respectively. The average male body length at 6, 9 and 12 months are 47.78±0.9 cm, 51.025±1.2 cm and 53.8±1.11, respectively. The average male body height at 6, 9 and 12 months are 50.675±0.9 cm, 52.4±1.47 cm and 56.5±1.15 cm, respectively. The average male body length, body height and chest girth at 6, 9 and 12 months are 57.9±1.39 cm, 60.8±1.14 cm and 66.6±1.43, respectively. The kidding percentage was 1.09 during 2017-18. A total of 123 faecal samples were screened for parasitic infections from goats of all clusters. The animals of the clusters were being monitored for regular health check-up, prophylaxis and treatment, as well as providing immediate advisory services to the farmers. Regular health check-up, sample collection, diagnosis of various diseases at field and at laboratory level were continued as earlier. The prophylactic measures are being done for FMD, PPR and ET. One training programme on 'Health management of goat in hilly areas' was organized at Lamkot village with 14 participants. Eight animal health camps and two exposure visits were organized. Two superior bucks were distributed at Lamkot village after studying growth and morphometric parameters. Ten bucks of 3- 6 months of age were procured from cluster and maintained at farm in order to select the superior bucks on the basis of growth performance.

10. Jamunapari Goat Farm Unit, ICAR-CIRG, Makhdoom, Farah, Uttar Pradesh

Jamunapari goat is known for its milk production and selective breeding programme is carried out at CIRG to improve the production performance. The flock strength of nucleus herd of Jamunapari goats at CIRG for the year 2017-2018 was 698. During the period 262 kids were born, in which 120 were males and 142 were females. The population growth of the flocks was 74.9% during the year. The nucleus herd is maintaining about 235 breedable adult does. The overall mortality of the flock during the year 2017-18 was 8.54 %. The mean body weights of kids at birth, 3, 6, 9 and 12 months of age were 2.928kg, 8.719kg, 14.676kg, 19.237kg and 24.265kg, respectively during the year. Year and Parity of dam had significant effect ($P<0.01$) on kid's body weight up to 12 months of age. Sex had highly significant effect ($P<0.01$) on body at all the age group. Season of birth had

highly significant effect (P<0.01) on body weight at 3 month of age only. Males had higher body weight than females at all the ages and the birth type also showed highly significant effect (P<0.01) at all the ages. Year by parity interaction had significant effect (P<0.01) on body weight at all the age of Birth weight, 3Month and 12 Month. Season by sex interaction had significant effect (P<0.01) on body weight at 3month, 6month, 9month and 12 month of ages. Year by Sex interaction had significant (P<0.01) effect on body weight at 3 month and 6 month of age. Type of birth by sex interaction had significant (P<0.01) effect on body weight at the birth. The average daily weight gain (ADG) of the kids under intensive management was 59.040, 113.383, 96.329, 167.727 and 114.974g/day, respectively during 3-6, 3-9, 3-12, 6-9, and 6-12 month age group. The highest value of ADG was 198g/d during 6-9months of age. Least squares means of part lactation milk yield in 90 days and 140 days were 74.030 ± 1.837 and 105.018 ± 2.837 liters, respectively during the year 2017-18. Year of kidding had highly significant (P<0.01) influence on both the milk yields. Parity had significant effect on milk yield over the years. The season of kidding had highly significant effect (P<0.01) on 90days milk yield. The doe, which had multiple births, produced more milk in comparison to doe having single kid. During this year, a total of 191 does kidded 262 kids, out of which single, twin and triplet born kids were 123, 65 and 03, respectively. Reproductive performance of Jamunapari goats in terms of breeding efficiency and kidding percent on the basis of does selected for breeding were 91.95% and 136.45%, respectively. The kidding rate was 1.36. During 2017-18 periods, a total 100 animals were selected of weekly testing goats for observed the different parameter of milk. Improved animals were supplied to various developmental agencies, farmers and state governments, Non-Government Organizations and progressive breeders for genetic improvement in the field conditions. During year, 169 improved animals were distributed to goat breeders for breed improvement programme. Jamunapari Unit works with Green Global Farm (Intensive system goat rearing) and with Govt. breeding farm, Etawah, UP.

11. Malabari Goat Field Unit, KV&ASU Mannuthy, Thrissur, Kerala

The unit is operational at KV&ASU Mannuthy, Thrissur, Kerala. The unit is operational at following cluster such Thalassery, Thaliparamba, Badagara, Perambra, Thavanur and Tanur located in Kannur, Kozhikode and Malappuram districts in northern and central parts of Kerala. AICRP on goat improvement (Malabari field unit) started functioning from April, 2001 with the main objective to bring improvement in the farmer's flock in its home tract. The registration of farmer's flock was carried out in six field centers. The nucleus herd was maintained at College of Veterinary and Animal Sciences, Mannuthy, Thrissur. Two organized farms with more than 100 goats under NGOs at Kottakkal, Malappuram district and Pudukad, Thrissur district have also been included during the year 2012 and 2017, respectively. Baseline information on production and reproduction traits, management practices and production trend were recorded and analyzed. A total of 25 bucks of Malabari breed was selected on the basis of body weight and distributed to various field centers.

Farmers have been registered and adult females have been provided with insurance coverage under the project. The closing balance of the registered flock was 3066 including 2233 adult female goats. During the current year, 949 kids were born out of which 482 were females. Population growth recorded was 75.53%. The mean body weight at birth, three, six, nine and twelve months of

age were 2.21±0.14, 8.53±0.32, 15.23±0.04, 21.43±0.42 and 22.24±0.32 kg, respectively. The genetic trend of body weight was highest at 6 month followed by 3 month of age. An increase in body weight of 0.41kg and 0.20 kg were achieved at 6 and 9 months age. Mean average daily milk yield was 0.88±0.05 litres. The mean average lactation yield was 75.50±6.80 lit with lactation length of 84.70±6.40 days. The genetic and phenotypic trends at 90 days milk yield were 0.19±0.13 and 0.074±0.004, respectively. The overall mean values of age at first service and age at first kidding were 246.25±14.10 and 390.31±12.70 days, respectively. The overall mean of gestation length and inter kidding interval were 149.50±0.20 and 276.81±12.50 days, respectively. The mortality was 1.77 % during the year. The kidding rate was 1.62 during the 2017-18. The percentage of singles, twins, triplets and quadruplets were 47.03, 45.52, 7.28 and 0.17, respectively.

12. Marwari Goat Field Unit, RAJUVAS, Bikaner, Rajasthan

The unit is operational at RAJUVAS, Bikaner. The unit is operational in five clusters ~~such as~~ Deshnok, Daiya, Kalayansar, Raisar and Kan Singh Ki Sird villages. The aim of the field unit is to improve the productivity of Marwari goats in the farmers' flock. The bucks true to the breed and having higher body weight were selected amongst registered breeders and registered farm in the adopted village. The population growth was 105.77 % for during the year. The overall body weights (2017-18) at different stages of growth were 2.66±0.003 kg at birth, 8.91±0.010 at 3 month, 13.91±0.017 kg at 6 month, 18.22±0.023 kg at 9 month, 24.14±0.033 at 12 month of age. The influence of birth weight on various non-genetic factors such as year and season of birth, sex and type of kidding were analyzed. The biometrical parameters like body length (BL), body height (BH) and heart girth (HG) were measured from birth to 12 months of age at six month interval. BL, BH and HG was 28.51±0.023, 33.32±0.015 and 28.67±0.036 cms at birth, 47.75±0.054, 52.01±0.029 and 45.02±0.061 cms at 6 month; 71.16±0.045, 64.83±0.043 and 64.31±0.047 cms at 12 months of age, respectively. The average milk yield was 35.08±0.13 liters in 30 days, 64.64±0.13 liters in 60 days, 83.03±0.33 liters in 90 days, 100.64±0.41 in 140 days and 88.48±0.40 liters in lactation length 108.96±0.44 during 2013-2017. The effect of year and season of birth, type of birth and lactation order on lactation performance was also evaluated. The kidding percentage and kidding rate were 107.76 % and 1.08, respectively during the year. The average age at first mating was 305.81±7.72 days with body weight of 23.71±0.58 kg. The average age at first kidding ranged from 455.81±7.77 to 540.61±0.61 days, weight at first kidding 27.57±0.29 to 28.71±0.28 kg, and the first kidding interval from 199.63±2.24 to 321.38±7.57 days and service period from 158.29±2.15 to 186.38±7.57 days during 2013 to 2017. Incidence of abortions and stillbirths were 5.28 % and twinning percent was 14.19 %. This may be due to adaptation of scientific managemental practice by the goat breeder and proper care of animals during the prevalent drought conditions. Fifty Eight (58) elite animals were distributed to the farmers for breed improvement in the breeding tract of Marwari goat. 60 out of 69 goat keepers were provided centric incentives as an umbrella.

The overall mortality was 1.08% for the reporting period (2017-18). This improvement is due to distribution of selected elite sires in farmers' flocks and effective health coverage.

13. Osmanabadi Goat Field Unit, NARI, Phaltan, Maharashtra

The unit is operational NARI, Phaltan. Osmanabadi field unit is operational in different clusters such as Ahmednagar, Beed, Pune and Satara districts. This year the Osmanabadi goat field unit adopted three new clusters - Patoda taluka in Beed district, Man taluka in Satara district and Baramati Taluka in Pune district. Five hundred ten adult does (199, 31, 218 and 62 adult does in Ahmednagar, Beed, Pune and Satara districts, respectively) are being recorded. These belong to 122 goat keepers, indicating that about four goats are reared per household on average. The population growth was 144.0% during year. Recording has been carried out on body weight, milk yield, reproduction, mortality, morbidity, cost incurred for goat rearing and income earned. The mean body weights of kids at birth, 3, 6, 9 and 12 months of age were 2.5kg, 10.4kg, 14.8kg, and 20.5kg, respectively during the year. The heritability at 3, 6 and 9 month of age were 0.17±0.05, 0.32±0.03 and 0.96±0.01, respectively. A total of 770 kids were born in 474 kidding of 429 does during the year, making the average litter size kidding rate was 1.79. The mortality over the year was 2.8%. Fourteen more Osmanabadi bucks were purchased during the period April 2017 to March 2018, with six months weights of 16 to 19 kg and dam's milk yield 1 to 1.8 litres per day. The lactation performance of Osmanabadi goat at 30, 60 and 90 days were 35.9±2.2, 74.1±3.8 and 121.8±4.5, respectively. The heritability of 30 and 90days of milk yield were 0.12±0.07 and 0.17±0.04, respectively. The mortality rate was 3.5% during the year. The standardized selection differential was 2.8 standard deviation units. The total number of bucks purchased since 2009 was 71. About 36,150 straws (0.25 ml French mini straws) of frozen semen of 50 Osmanabadi bucks have been produced so far in NARI's Frozen Semen Laboratory from January 2012 to 31 March 2018. During 2017-18, total 3,830 Osmanabadi buck straws were supplied to A.I. technicians, farmers and entrepreneurs for breeding Osmanabadi goats. More than 70 A.I. technicians have started using Osmanabadi buck frozen semen from NARI for inseminating Osmanabadi and local does in the field. Conception thus the superior genetics developed in the Osmanabadi Field Unit is reaching far and wide. Considering a 50% conception rate, that means 450 does have conceived from this frozen semen and produced progeny. The least square mean 90-day milk yield of Osmanabadi does was 110 kg with 1398 records. This was measured using the weigh suckle-weigh method and is likely to be a slight overestimate. Even so, this establishes the Osmanabadi breed to be among the top five dairy goat breeds in India. The least squares mean 90-day milk yield of does having singles, twins and triplets was 62.9, 92.4 and 126.1 kg respectively, indicating that milk yield increases with the number of kids. The unit has published ten information booklets/leaflets in Marathi language to give information to goat keepers on better goat management practices. Regular preventive health care of goats was carried out in all villages including vaccinations, deworming and spraying against ecto-parasites. Goat keepers were trained in preventive health care of goats and first-aid treatment so that they can care for their goats themselves instead of having to rely on others.

14. Sangamneri Goat Field Unit, MPKV, Rahuri, Maharashtra

The unit is operational at MPKV, Ranchi and the unit has following clusters such as Sangamner, Shrirampur, Rahuri, Belha and Sinner. Sangamneri goat (field unit) was started with the

main objective of bringing the genetic improvement in production and reproduction performance in the farmers flock. Accordingly, the baseline information pertaining to growth, reproduction, and management practices followed by farmers was collected. The programme was initiated by registering 500 does located in the breeding tract. However, as per the directives given during scientist meet the programme is extended by registering 2310 breedable does. The area under execution is divided in five centres (clusters) covering three districts i.e. Ahmednagar, Nasik and Pune. The closing balance as on 31.03.2018 was 6844. The overall population growth was 38.98% during the year. About 44 breeding bucks were rotated in the field during 2017-18 and total 2290 births were obtained in the farmer's flock, during the year.

The overall least squares means of the body weight at birth, 3, 6, 9 and 12 months of age was 2.16 ± 0.03, 9.57 ± 0.12, 15.37 ±0.11, 19.25 ± 0.13 and 23.31 ± 0.18 kg, respectively. All the non-genetic factors i.e. village cluster, year of birth had season of birth had significant influence ($p<0.01$) on body weights up to six month of ages, sex and sire influenced the body weights significantly ($p<0.01$) up to 12 months of age.

The overall means for age at maturity, age at first conception and age at first kidding were 245.87±6.17, 264.82±19.51 and 418.62± 19.59 days, respectively. The service period and kidding interval were 123.98±4.87 and 256.84 ±4.86 days, respectively. The number of kids per kidding was 1.52±0.08. The 90 days milk yield was 99.03±2.17 litre which was significantly affected by village cluster, year and season of kidding and kidding interval. The kidding rate was 1.52. During this year, a total 1501 does kidded 2290 kids. The improvement in milk yield over the baseline population was 57.82 per cent. During the year, 4 awareness camp and 1 Sangamneri goat show One TV & 3 Radio programme to create awareness about breed conservation were conducted.

15. Sirohi Goat Farm Unit, ICAR-CSWRI, Avikanagar, Rajasthan

The opening balance of flock strength on 01.04.2017 was 219 males and 376 females totaling 595 animals. The additions during the year were due to birth of 137 male and 141 female kids. The reductions were due to death of 9 males and 9 females, culling of 35 males and 33 females, sale of 85 males and 63 females and free distribution of 13 males to the registered farmers. The closing balance as on 31.03.2018 was 194 males and 387 females totaling 581 animals. The population growth over the year was 88.67%. The overall least squares means for live weights at birth, 3, 6, 9 and 12 months of age were 2.96±0.05, 12.87±0.25, 20.65±0.62, 26.17±0.80 and 31.01±0.79 kg, respectively during 2013-2018. Males were heavier than the females at all stages of growth. The Least squares means of average daily gain in body weight was 109.84±2.62 and 67.86±2.46 g from 0 to 3 months (PDG 0-3) and 3 to 12 months (PDG 3-12) of age, respectively. The overall least squares means for milk yield of does kidded during 2012-13 to 2016-17 at 90 days, 150 days, total lactation milk yield and lactation length were 71.35±0.48, 99.68±0.73 and 112.78±0.86 litre, and 189.73±1.00 days, respectively. The effect of year of kidding and lactation order were significant on all the traits. Out of 268 does available for breeding, 262 were tupped and 223 kidded with 27 giving birth to twins, 02 triplets and 01 quintuplet during the year. The tupping percentage was 97.76. The breeding efficiency was 88.55% and 90.63%, on the basis of does available and does tupped. The

kidding percentage was 98.09 and 100.39% on the basis of does available and does tupped, respectively. The litter size was 1.15. The mortality rates in 0-3, 3-6, 6-12 month age group and in adults were 4.23, 0.46, 0.95 and 0.35 percent, respectively. The overall mortality rate based on animals available and exposed at different stages of growth was 1.37 percent. The kidding rate was 1.13% during the year. A total of 148 animals comprising of 85 males and 63 females were sold to the progressive farmers, government and non-government agencies for breed improvement. In addition to these, 13 superior Sirohi bucks were distributed to the registered goat farmers under MoU for breeding and improvement of their livestock. The total receipts from sale/transfer of different items during the year were Rs. 18,23,886.00**.**

16. Sirohi Goat Field Unit, College of veterinary sciences & AH, Vallabhnagar, Rajasthan

The unit is operational at college of veterinary science, Vallabhnagar. The unit has following clusters such as Devgarh, Karget, Bojunda Farm. Sirohi goat field unit was started with the main objective to bring about the improvement in the production performance in the farmers flock. As per technical programme base line information on production and reproduction traits, managemental practices, production trend and disease pattern were recorded and analyzed. The registration of farmer's flock and the identification of animals were carried out in four clusters. The data on growth, lactation and reproductive performance of Sirohi goats under field conditions have been analyzed using least squares analysis since 2012. The closing balance of the registered flock was 1516 animals including 973 adult females. During the period, 610 kids were born out of which 319 were males and population growth was 73.91%. Total 348 males were sold out of which maximum 151 males were sold at adult age group.

The least squares means for body weight at birth, 3, 6, 9 and 12 months of age was 2.44±0.03, 13.11±0.28, 17.53±0.36, 21.19±0.65 and 25.83±0.53 kg, respectively. Year, season, sex of kid and type of birth had significant effect on body weights at different age. Single born kids were significantly heavier than the multiple born kids at all the ages. The least squares means for milk yield at 30 days, 60days, 90 days, 150 days and lactation yield were 23.07±5.62, 50.26±11.14, 74.52±15.58, 101.19±22.25 and 102.69±21.61 lit, respectively. Period, Season of kidding, type of birth had significant effect on milk yield. The lactation order played a significant role in milk yield. The overall least squares means for age at first mating, weight at first mating, age at first kidding, weight at first kidding, service period, kidding interval and gestation period of test progenies were 492.42±10.92 days, 26.61±0.15 kg, 612.39±11.33 days, 29.69±0.14 kg, 239.27±3.74, 389.29±3.74 and 150.05±0.03 days, respectively. The kidding rate (litter size) was 1.07. The overall mortality was 6.02% during the year**.** During report period 4111 animals were dewormed; ecto-parasiticide was used in 4858 animals. Further, 2102 and 1543 animals were vaccinated for ET & PPR, respectively. Four training programme were organized during the year.

17. Surti Goat Field Unit, N.A.U., Navsari, Gujarat

The unit is operational at N.A.U., Navsari, and Gujarat. The unit has following clusters such as Bharuch, Karjan, Jambusar, Navsari, Bilimora and Vapi. On-going AICRP on goat improvement (Surti field unit) came in to financial existence on l January 2001, with the main objective to bring about the genetic improvement of Surti goats in the farmers' flock. The data on growth, lactation and reproductive performance of Surti goats at farm unit have been analyzed using least square techniques for the year 2017-18.

The closing balance of the farm flock was 178 animals including 137 females. Out of 137 females 85 females were breedable. During the year, 12 new white coloured goats had kidded for the first time. During current year, 119 kids were born out of which 50 were males. Total 37 males were sold out of which maximum 24 males were sold after 12 months age for breeding purpose.

Overall population growth of 128.24% was recorded with the addition of 119 live kids. A substantial increase in the population growth had been observed during current year because data pertains to farm unit rearing goats with scientific methodologies. There is requirement to educate farmers for intensifying kid care in early age to obtain increasing population growth trend. Significantly higher white: non-white ratios of kids have been obtained in farm flock as a result of selective breeding for economically important trait of white colour.

The least square means for body weight (2013-18) at birth, 3, 6, 9 and 12 months of ages was 2.036 ± 0.014 (2294), 8.354 ± 0.060 (1540), 13.309 ± 0.091 (1271), 18.685 ± 0.091 (1021), 21.999 ± 0.151 (454) kg, respectively. Significantly higher body weight had been observed among all the age groups except birth weight during report period as compared to year 2013-14. Season of birth, sex of kid, colour and type of birth had also significantly affected the body weights. Kids born between November and February months had higher birth weights at all age groups. The least square mean weight of single born kids was found to be significantly higher than the twins and triplet kids at all the age groups.

The overall least square means for milk yield over 90 days, 150 days, lactation yield and lactation length was 80.22 ± 1.51 (678), 128.51 ± 2.22 (525), 127.79 ± 3.26 (688) Kg and 169.74 ± 2.55 (688) days, respectively. Significant increase in 90 and 150 day milk yield had been observed during report period as compared to 2012-13 that may be attributed to better germplasm and adoption of scientific methodologies at farm unit. Season of kidding has significant effect on milk yield and goat kidded during the July to October remained low producer throughout. Surti goats with higher litter size were found to be better producer compared to their counter parts. This phenotypic variation in milk yield among Surti goats gives possible scope for improvement in Surti Flock for total lactation yield using selection tools.

Age at first mating, weight at first mating, age at first kidding, weight at first kidding, service period, kidding interval and gestation period were 493.50 ± 22.54 (12) days, 24.83 ± 1.30 (12) Kg, 639.92 ± 21.41 (12) days, 27.00 ± 1.29 (12) Kg, 166.61 ± 16.18 (46), 313.13 ± 16.45 (46), 148.52 ± 0.90 (46) days, respectively. The kidding rate (litter size) was 2.05 justifying higher prolificacy in Surti Goats. Continuous significant improvement in reproductive traits had been observed over last five years.

18. Uttarakhand Local Goat Field Unit, GBPUA&T, Pantnagar, Uttrakhand

The unit is operational at GBPUA&T, Pantnagar. The unit is operational at following clusters such as Bara, Tilpuri, Bhimtal, Kunda and Majhera. The major objective of the project is to improve the performance of Pantja goats in its home track. To fulfill the objectives, five clusters viz. Bara, Tilpuri, Bhimtal, Kunda and Majhera were established. A total of 1019 kids using 50 bucks and 876 doe have been produced during reporting period. The average body weights were 1.90±0.01, 9.76±0.07, 13.11±0.08, 16.70±0.11 and 20.06±0.14 kg, at birth, 3, 6, 9 and 12 months of age, respectively The average milk yield up to 30, 60, 90 and 120 days was 12.13±0.13, 27.16±0.18, 46.34±0.33 and 63.34±0.44 litres respectively. The average lactation length and lactation yield were 117.46±2.26 days and 58.99±1.04 litres respectively. The average age and weight at first mating were recorded as 286.10±6.55 days and 17.45±0.23 kg, respectively. Kid mortality between 0-3 months was recorded as 17.06% and adult mortality as 4.42% with total flock mortality as 11.07%. The kidding rate has been recorded as 1.53 (153%). The twining and triplet kidding rates were 48.42% and 2.41% respectively. A nucleus flock of Pantja goats has been established at Pantnagar, wherein 50 females and 28 males are being maintained (as on March 31, 2018). During the report period 27 Pantja bucks (total 88) were supplied and 67 scrub bucks (total 164) were castrated in the field.

2.1. RESEARCH EVALUATION MONITORING & EVALUATION OF UNITS

Monitoring and Evaluation is an important factor to depict the progress of the project in right direction. A proforma for evaluation has been developed by Project Coordinator unit during the year, which is being used by in charge PC to evaluate the performance of the unit while visiting any AICRP Unit. This proforma will help to analyze the performance in uniform manner. Moreover, a quantitative evaluation proforma has been developed and the performance of all the units will be evaluated basing on those criteria.

Weightage criteria

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AICRP on Goat Improvement

Score Sheet of Evaluation of AICRP Unit

Weightage Criteria

Activity	Rating Scale	Criteria Value					
		100%	90%	80%	70%	60%	Below 60%
Implementation of Technical Programme	40	PC's Unit Evaluation					
Timely submission of 6 monthly target & Achievement (Oct-March)	7.5	07.04.2018	10.04.2018	12.04.2018	14.04.2018	15.04.2018	
Timely submission of 6 monthly target & Achievement (April - Sept)	7.5	07.10.2017	10.10.2017	12.10.2017	15.10.2017	-----	-----
Provisional Annual AUC Submission	6.5	10.04.2018	11.04.2018	12.04.2018	17.04.2018	15.04.2018	
Final AUC Submission	6.5	20.07.2017	24.07.2017	26.07.2017	28.07.2017	31.07.2017	
Timely Submission of Annual Report	10	20.04.2018	25.04.2018	28.04.2018	30.04.2018	01.05.2018	
Quarterly submission of Fund Utilization	5	Within 7th day of Quarter	Within 8th day of Quarter	Within 9th day of Quarter	Within 10th day of Quarter		
TSP Report (if applicable)	3	2th day of month	3th day of month	3th day of month	5th day of month		
Technology Intervention/ Demonstration	2						
Training Organized	10	6	5	4	3	2	1
Percentage of Fund Utilization	2	98	96	94	92		
Total	**100**						

Rating Scale*Criteria Value/100=Final Score

The progress of research work of different unit were evaluated by the in charge PC Unit

Table 5: Monitoring & Evaluation of AICRP on Goat Improvement Units

Visit of Dr. M. S. Chauhan, Director CIRG to AICRP Centres.

S N.	Details of monitoring activity by PC unit	
1.	Marwari Field Unit, RAJU&VAS, Bikaner	7-11 February, 2015
2.	Sangamneri Field Unit, MPKV, Rahuri, Ahmadnagar Maharashtra	7-12 October, 2017
3.	Sirohi Field Unit, CSWRI, Avikanagar	7-10 December, 2017
4.	Assam Field Unit, AAU, Assam/NE Visit	6-8 May, 2018
9.	Performance review of Ganjam field Unit.	April 26-29, 2016

Visit of Assam Local unit

Visit of Sirohi Farm Unit, CSWRI, Avikanagar

Visit to Rahuri

Visit of Director, CIRG Makhdoom with women beneficiary (earn 5 lakh through Sangamneri Goat)

2.2 Research Evaluation : 2017-18

Project Coordinating Unit, CIRG, Mathura Dr. P. K. Rout, Principal Scientist (AGB) & Incharge, AICRP on Goat Improvement **PC'S evaluation:**				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
• Evaluation of Ganjam, Assam goat and Marwari field units • Preparation of different format for PC Report • Preparation of SFC for 2017-2020 • PC Report preparation • Organization of Annual Review Meet & submission of report proceedings • Six monthly target & achievement • Preparation of AICRP report since inception • DNA data base and milk protein genotype • Preparation of formats and SOP for different • Compilation of success story • TSP detail and release of fund. • PFMS Operational for all the units.	• Monitoring and evaluation Ganjam, Gaddi, Assam and Ranchi in unit • Format for Annual report, presentation • AUC, Specified target & achievement, monthly TSP report along with other necessary format for data recording has been developed & circulated among the units. • SFC for the period of 2017-20 for both AICRP on Goat has been submitted to the council. • Outcome evaluation of project 201-2017. • Preparation of participating committee report • Preparation of AICRP evaluation report from inception and presentation in the meeting • DNA database & milk protein genotyping has been started. • Financial utilization for 2012-2017. • Release of fund to every unit.	• Some units are not providing information within time limit. • PFMS operational for each unit.	1. Evaluation of units 2. PC Report preparation 3. Organization of Annual Review Meet & submission of report proceedings 4. Organization of Progress Monitoring 5. Six monthly target & achievement 6. Release of fund to every unit. 7. TSP report 8. Organization of Kisan Kalyan Abhiyan program in tribal area. 9. Release of Fund 10. Evolution & monitoring of each unit. 11. Statistical data analysis. 12. Publication of research report.	

PROJECT COORDINATOR'S UNIT
ICAR-CIRG, MAKHDOOM, UTTAR PRADESH

TRAINING PROGRAMME

DIRECTOR CIRG PROJECT COORDINATOR IN TRAINING PROGRAMME

WOMEN TRAINEES DURING EXPOSURE VISIT TO CIRG

EXPOSURE VISIT - WOMEN FARMERS FROM ASSAM

TRAINEES FROM CHANGTHANG UNIT

FIELD VISIT TO GANZAM UNIT

ANDAMAN GOAT UNIT
CIARI, PORT BLAIR

MALE

TRAINING PROGRAMME

FEEDING THE GOATS

GOAT SHED MADE OF LOCAL RESOURCES

TECHNOLOGY DEMONSTRATION

TRAINING CAMP

Andaman Goat Field Unit, ICAR-CIARI, Port Blair, A & N Island

PI - Dr. Jay Sunder, Principal Scientist (Microbiology)

PC's evaluation: (Very Good)

Activity assigned and targets fixed for each activity during the period	Activity carried out during the period	Gaps/constraints /shortfalls/excess and reason thereof, if any	Future programme identifying the activities, time line and targets for each of the activity	Remarks
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/ Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created Other prioritized activities***	• A new cluster has been established in Nimbudera at North & Middle Andaman District, and a total of 427 goats were registered including 152 males and 271 female goats During the year a total of 129 new farmers and 427goats were registered under the project in all the clusters. • The overall population growth was 108.3%. • A total 16 superior breeding bucks distributed. • The mortality was 6.5 %. • Mineral mixture was given to 2334 goats, 1827 were treated for different illness and 2521 goats were given deworming • A total of 02 trainings, 05 awareness programmes and 2 health camps on scientific goat rearing were conducted and in which 234 farmers participated. • Two extension leaflets on Andaman Local Goat, scientific goat farming & *dweepon mein bakiri paalan* (in hindi) was prepared and distributed to the registered farmers • Net income/ animal was found to be Rs. 3557.19/-	• Management practices during rainy season should be defined. • The birth weight of kids needs to be improved. • Technology adoption rate. • Genetic parameter estimation should be carried out. • No Information on Teressa Goat.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 4-8 per year 6. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 10 per year	

Assam Hill Goat Field Unit, AAU, Khanpara, Guwahati, Assam PI- Dr. N. Nahardeka, Professor (AG&B) **PC's Evaluation:** (Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints /shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line & targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/ Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/Book/Leaflet pamphlet • ***Linkage created*** ***Other prioritized activities***	• Digholbori, under Morigaon district was adopted during the period. • The population growth of 97.47 % in the adopted field units. • The average mortality rate was 7.50% • Twenty one elite bucks maintained at the base farm, Goat research Station, AAU, Burnihat has been distributed. • 27 bucks have been exchanged. • 48 new beneficiaries and 595 goats have been registered. • Fourteen (14) awareness cum training camps have been organized. • Twenty Seven vaccination camp to immunize 9683 animals, 25 deworming camp organized in which 4752 animals were dewormed & 37 treatment camps have been organized to treat 4418 animals • 643 goats were sold by the beneficiaries. The average family income from goatery has been recorded as 3939.00 per house hold.	• Genetic parameter estimation • No information on semen dose conservation of selected males. • Number of observation taken for growth data • Total number of animals covered under each cluster is not provided. • Sample size should be more for milk recording. • A management practices during rainy season should be availed	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 4-8 per year 6. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 6per year	• Mortality due to flood • Disease occurs due to flood.

ASSAM HILL GOAT UNIT
AAU, KHANPARA, GUWAHATI, ASSAM

TRAINING ON GOAT PRODUCTION

EXPOSURE VISIT

VACCINATION CAMP

SEMEN COLLECTION

MINERAL MIXTURE & BOTTLES DISTRIBUTION

TRAINING PROGRAMME

BARBARI GOAT FARM UNIT
ICAR-CIRG, MAKHDOOM, UTTAR PRADESH

BARBARI FLOCK

VISIT OF HON'BLE DG TO BARBARI UNIT

VISIT OF HON'BLE FORMER DG TO BARBARI UNIT

BARBARI FLOCK

MULTIPLIER FLOCK

MULTIPLIER FLOCK

Barbari Goat Farm Unit, ICAR-CIRG, Makhdoom, Uttar Pradesh PI- Dr. M.K. Singh, Principal Scientist (AG&B) **PC's evaluation:** (Very Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints / shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/ Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** ***Other prioritized activities***	• The population growth, kidding percentage, kidding rate (litre size) were 164.46%, 99.23 %, 1.83 respectively. • 232 superior germ-plasm supplied to goat farmers and development agencies lactation performance increase by 12-16% • Milk production of unit was 10636 liter. • Two exposure visits of 40 farmers from different centers were organized and 40 farmers from different centers has visited Kisan Mela AGROTEC 2018. 38 farmers have attendant ten days training on Goat Farming. • The kidding rate was 1.47 during the year. • The milk Yield at 90 and 140days was 62.4 liter, 80.6 liter, respectively. • The estimates of h^2 for MY 90, LMY and LL were 0.142±0.131, 0.109±0.108, 0.106± 0.109 and 0.309±0.115 respectively	• Defining the selection objectives. • Selection of males and breeding plan need to be finalized • Improvement in Farmer field & success story publication.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 4-8 per year 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year 7. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 5 per year	

Bengal Goat Field Unit, BAU, Kanke, Ranchi, Jharkhand PI- Dr. Sushil Prasad (LPM) **PC's Evaluation :** (Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints / shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/ Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• 33New Bucks distributed among the farmers at four centers of the project. • Kidding rate (litter size) of Black Bengal goat was estimated as 1.89 with 170% kidding percent. • 7 bucks & 28 Does (on the basis of growth and multiple births) were selected from different centers and distributed among 7 farmers under TSP program. • Vaccinated with PPR (3750 goats), dipping (3352 goats) and deworming of 3945goats have been done. Mortality was reduced up to 1.14 percent at the farmer flock. • A One day training-52, Three day training – 50, Ten day training – 38, Exposure visit- 03 and capacity building - 02 at Small Ruminant Instructional Farm, R.V.C Kanke and centers for farmers of all the centers	• Data collections need to be standardized for both growth and milk yield. • Genetic parameter estimation for growth and milk yield. • Define the proper technologies developed by BAU. • Package of practices should be published. • No improvement in weaning weight and package of practices for weaning management should be developed. • Base line data should be collected. • Clusters wise animal distribution and buck distribution. • Farmer's centric input need to be provided. • All the data need to be analysed again.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 6 per year 6. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 10 per year	• Please provide the category of Farmers under SC/ST and General Category • Why Malathion is given for treatment. Malathion should not be used for dipping • Details of goat based technologies to be provided.

BLACK BENGAL GOAT FIELD UNIT
BAU, RANCHI, JHARKHAND

FARMER'S TRAINING

HEALTH CAMP

BUCK DISTRIBUTION TO FARMERS

HOUSING OF GOAT

CONCENTRATE FEEDING TO GOATS

GRAZING IN PADDY FIELD

BLACK BENGAL GOAT UNIT
WBUV&FS, KOLKATA, WEST BENGAL

BLACK BENGAL KID BOTTLE FEEDING

BODY WEIGHT RECORDING

BUCK MANAGEMENT

METHOD OF BREEDING

FEEDING IN FARMER'S FLOCK

MARKETING OF GOATS

Black Bengal Goat Field Unit, WBUV and FS, Kolkata, West Bengal PI- Dr. Manorajan Roy, Professor (AG&B) **PC's evaluation :** (Very Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints / shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/ Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet · ***Linkage created*** · ***Other prioritized***	• The population growth rate of Black Bengal for 2017-18 is 244.20 % • The kidding rate (litter size) was 1.89%. • The mortality rate to 6.55 % • 106 Health, Deworming & Vaccination camp has been organized. • 25 bucks were distributed in adopted villages. • Thirty eight nos. of vaccination camp also conducted. PPR, Goat pox and Enterotoxaemia vaccine were administered to 2039, 2338 and 512 goats respectively in adopted villages • Four success story, One booklet and Four nos. of leaflet has been made during 2017-18. 3 research articles has been published.	• A package of practices for parasite control in kids. • Genetic parameter estimation of growth and milk yield should be carried out. • TSP report should be submitted within time period. • Milk replacer need to be popularized.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 4-8 per year 6. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshute/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 10 per year	

Changthangi Goat Field Unit, SKUAST, Kashmir, Leh-Ladakh, J&K PI - Dr. Feroz Seikh, Associate Professor (AG&B) **PC'S evaluation :** (Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints / shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti /Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• The population growth was 58.51%. • A total of 04 bucks were distributed to farmers. • The overall mortality rate was 6.78 %. • Health coverage under migratory field conditions viz. Deworming and dipping 2345 goats, ET, H.S. and FMD 457 goat, coccidiosis 781 goats after faecal sample analysis, periodic health checkups etc. • 4 success story and 3 leaflets have been presented during the year. • 6 Field training, 1 on farm training and 1 national level training were conducted. • Technology transferred low cost kid shelter, Low cost feeder, animal identification, pure pashmina shawl.	• Selection of bucks based on defined selection criteria should be carried out. • Details of cluster-wise buck distribution. • Base line data collection should be carried out. • Genetic parameter estimation of fiber yield should be carried out. • Buck distribution is less and should concentrate in this year.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 5 per year 6. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 6 per year	

CHANGTHANGI GOAT FIELD UNIT
SKUAST, Kashmir, Leh-Ladakh, J&K

FIELD TRAINING TO FARMERS

PREPARATION OF CONCENTRATE MIXTURE

PASHMINA SHAWL DEVELOPMENT

PASHMINA SHAWL PREPARATION

FODDER LAND

LOKMA (FODDER VARIETY)

GADDI GOAT FIELD UNIT
HPKVV, PALAMPUR, HIMACHAL PRADESH

FARMER WITH BREEDING BUCK

RECORDING OF BODY WEIGHT

PI, DEAN (COVAS) & ASSISTANT DIRECTOR (ANIMAL HUSBANDRY) INTERACTING WITH FARMERS

BUCK DISTRIBUTION TO FARMERS

VACCINATION OF A FLOCK

MORPHOLOGICAL TRAITS

Gaddi Goat Field Unit, HPKVV, Palampur, Himachal Pradesh PI- Dr. P.K. Dogra, Professor (AG&B) **PC'S evaluation :** (Very Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints /sh ortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/ Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• The population growth was 105.28%. • The kidding percent of the flocks was 67.09. • A total of 27 males were distributed to different farmers. • Health coverage under migratory field conditions viz. vaccination against PPR (2000 doses), de-worming (1655 animals) against endo-parasites after faecal sample analysis, periodic health checkups etc. • The mortality, abortion and kidding was 6.78, 5.81 and 67.09%, respectively. • The body weight at 12 month of age was 27.85kg.	• A kit should be developed as per requirement of farmers during migration. • Technology adoption rate need to be calculated. • Market linkages for selling of animal. • TSP report submission • Farmer's centric input need to be provided.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 6 per year 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year 7. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 8 per year	

Ganjam Goat Field Unit, OUAT, Bhubaneswar, Orissa PI - Dr. D. K. Karna, Associate Professor (AG&B) **PC'S evaluation :** (Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• The population growth for the year 2017-18 was 68.9 percent. • 20 new farmers have been registered • A total of 6630 vaccinations were done against PPR, Enterotoxaemia, goat pox and FMD and 9988 deworming dosages were administered. • A total of two training programmes were organized at Jirabadi and Rambha. • 100 farmers were trained. • The body weight at birth, 3, 6, 9 and 12 month of age was 2.51, 7.77, 9.95, 14.52 and 18.44kg, respectively. • The milk yield of at 30 days and 60 days were 8.035 ± 0.22 and15.54 ± 0.41 kg respectively.	• No information provided on number of bucks distributed for breeding purpose. • Base line data should be carried out. • Doe productivity need to be calculated. • More training should be carried out. • A nucleus flock should be developed. • Package of practices should be developed. • Farmer's centric input should be provided.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 6 per year 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year 7. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 10 per year	

GANJAM GOAT FIELD UNIT
OUAT, BHUBANESWAR, ODISHA

GOAT FRAMERS' TRAINING

DISTRIBUTION OF UMBRELLA, LED TORCHES TO FARMERS

PARTICIPATION OF EXHIBITION ON UTKAL DIWAS

TECHNOLOGY TRANSFERRED AND VALIDATION

EXHIBITION ON UTKAL DIWAS

BREEDING BUCK

HIMALAYAN LOCAL GOAT FIELD UNIT
ICAR-IVRI CAMPUS, MUKTESHWAR

TRAINING PROGRAMME

VACCINATION CAMP

GRAZING PRACTICES OF GOAT

HEALTH CAMP

TYPICAL WOODEN FLOOR FOR GOAT REARING

HIMALAYAN GOAT

Himalayan Local Goat Field Unit, ICAR-IVRI Campus, Mukteshwar PI - Dr. C. K. Jana **PC'S evaluation :** (Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• The population of growth was 53.55%. • Kidding rate was 1.09. • Total forty seven farmers have been registered • Two elite bucks have been distributed at Lamkot village of Almora district after selection • The overall mortality during the year 2017-18 was 3.77% • Three health camps were organized at Gandhak, Khola and Lamkot village covering 245 animals of 46 families. • The body weight at 6, 9 and 12 months are 13.97±0.8, 17.035±0.97 and 20.95±0.58, respectively.	• Less number of goats has been covered under the project. • No information of buck distributed. • No information provided on trainings. • Not provided any health care • No information on whether animals adopted or not. • Tagging is not complicated in the adopted villages. • Detail description for breed descriptor not completed. • Buck distribution cluster-wise should be mentioned. • Base line data not completed. • Milk yield not carried out. • Farmer's centric input need to be provided.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 6 per year 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year 7. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 10 per year	

Jamunapari Goat Farm Unit , ICAR-CIRG, Makhdoom, Uttar Pradesh PI- Dr. M. S. Dige, Scientist (AG&B), **PC'S evaluation :** (Very Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• Body weight recording was carried out in 262 kids. • Milk yield recording was carried out in 163 does. • A total of 262 kids born during the year. • The nucleus herd is maintaining about 235 breedable adult does. • The overall mortality of the flock during the year 2017-18 was 8.54 % and annual culling rate was 5.79 %. • 169 improved animals were distributed to goat breeders. • 2 Government flock has been adopted. • 1 research articles has been published and 1 has been accepted. One abstract has been published in national seminar. • Breeding efficiency & kidding percent on the basis of does selected for breeding were 91.95% and 136.45%, respectively • The kidding rate was 1.36.	• Effort on data collection from multiplier flock. • Success story documentation in field conditions.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 4-8 per year 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year 7. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 5 per year	

JAMUNAPARI GOAT FARM UNIT
ICAR-CIRG, MAKHDOOM, UTTAR PRADESH

BREEDING BUCK

DOE

FARMER'S TRAINING

BUCK DISTRIBUTION

MERA GAON MERA GAURAV GOSTHI

DIPPING FOR ECTOPARASITE

MALABARI GOAT FIELD UNIT
KVASU, MANNUTHY, THRISSUR, KERALA

TRAINING MANUAL ON GOAT FARMING

BUCK DISTRIBUTION

PLASTIC SLATED FLOOR

GOAT REARING - SEMI INTENSIVE SYSTEM

HOMESTEAD FARMING SYSTEM

DEMONSTRATION OF FOOT DIPPING TO FARMERS

Malabari Goat Field Unit, KV&ASU, Mannuthy, Thrissur, Kerala PI - Dr. Thirupathy Venkatechalapathy, Assistant Professor. (AG&B) **PC'S evaluation :** (Very Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints/shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication***· Paper/Article/ Abstract/Book/ Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• The population growth was 75.53%. • 25 superior bucks have been distributed to farmers for breeding. • An increase of body weight of 0.17kg & 0.75kg were achieved at birth & 6 months age. • The kidding rate was 1.62%. • Mortality rate was reduced to 1.77%. • 9 hands on training with 2 days duration to 143 farmers. • 4 field trainings to 173 farmers and 27 on farm class of 2-3 hours to 720 farmers were organized. • Technology for FAMACHA eye colour chart was standardized. • Published one training manual, 3 leaflets/ pamphlets, 8 research papers and presented 6 technical papers.	• More farmers should be included. • Base line data collection should continue. • Nucleus farm should be strength. • Publication of success story.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 6 per year 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year 7. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 10 per year	

Marwari Goat Field Unit, RAJUVAS, Bikaner, Rajasthan PI- Dr. G. C. Gahlot, Professor (AG&B) **PC'S evaluation :** (Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constrain t s/shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
• ***Performance Recording*** • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** • ***Technology developed*** • Demonstration of technologies in the farmer's field • ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/Me eting Conducted • ***Capacity Building*** • Providing skills to farmers for scientific goat farming. • ***Publication*** Paper/Article/Abstra ct/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• The population growth was 105.77 during year. • The kidding percentage and kidding rate was 107.76 % and 1.08, respectively. • The overall mortality was 1.08 %. • Out of total 13249 prophylactic measures, 6107 were for endo-parasite, 19412 for ecto-parasite, 3022 for FMD vaccination, 1211 for ET vaccination and 968 for PPR vaccination for this financial year. • Fifty Eight (58) elite animals were distributed to the farmers for breed improvement in the breeding tract of Marwari goat. • 6 preventive health camps were organized, 264 farmers were trained.	• Need to check the genetic parameter estimation. • Cluster-wise buck distribution. • Package of practices for abortion management in field. • Base line data & collection should continue. • Re-analysis of milk yield data.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 30 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 6 per year 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/ camp to be organize) = 10 per year	

MARWARI GOAT FIELD UNIT
RAJUVAS, BIKANER, RAJASTHAN

TRAINING ORGANIZED

GOSTHI ORGANIZED FOR REGISTERED GOAT BREEDER

MARWARI GOAT

BREEDING BUCKS

FARMER'S CENTRIC DISTRIBUTION IN DIFFERENT CLUSTER

FARMER'S CENTRIC DISTRIBUTION IN DIFFERENT CLUSTER

OSMANABADI GOAT FIELD UNIT
NARI, PHALTAN, MAHARASHTRA

BOOKLET DISTRIBUTION

FODDER CROP FROM SEED

FODDER SEED DISTRIBUTION

AI IN FIELD

FEEDING OF GOAT

GRAZING GOAT

Osmanabadi Goat Field Unit, NARI, Phaltan, Maharashtra PI- Dr. Chanda Nimbkar, Director **PC'S evaluation:** (Very Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints/shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• The kidding rate was 1.79 litter size. • The population growth over the year was 144.0. • The heritability of 3,6 and 9 month age were 0.17±0.05, 0.32±0.03, 0.96±0.01respectively • The heritability of 30 and 90days milk yield was 0.12±0.07 and 0.17±0.04 respectively. • 768 adult does are being recorded. • Mortality during the year was 3.5%. • 15 Osmanabadi bucks were distributed • 8 training programs for preventive health care of goats & first-aid treatment in which 102 goat keepers participated. • Exposure visit - 2 Awareness camps – 2 Goshti / Meetings - 2 Health camps – 15 and animals covered 2944 were conducted. • 3 abstract and 2 marathi articles have been published.	• Cluster-wise animals recording need to increase. • Base line data of all the new clusters should be included. • Farmer's centric input need to be provided. • Data on doe productivity need to be provided. • Mortality and morbidity recording should be recorded as per format.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 8 per year 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year 7. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 10 per year	

Sangamneri Goat Field Unit, MPKV, Rahuri , Maharashtra PI- Dr. Sanjay Mandakmale, Associate Professor (LPM) **PC'S evaluation:** (Very Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constrain t s/shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/Me eting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• Registered 2310 breedable does in four clusters. • Rotated 44 elite bucks in the selected clusters. • Population growth over the year was 38.98%. • The improvement in milk yield was 55.95% over the year. • Kidding rate during the year was 1.52. • Supplied 4862 F.S. doses to field LSS on experimental basis. • Two national/ international papers, 2 lead articles, 4 abstract, one training manual and one success story has been published. • Organised 4awareness camps, 6 exposure visit, 7 training programme, 1 Sangamneri goat show One TV &3Radio programmes to create awareness about breed conservation. • 76 No. of farmers added during report period.	• Birth weight recording in all the adopted villages. • Base line data from each new cluster and farmers. • Practices health case details need to provided. • A package of practices needs to develop on management of abortion in field condition. • Genetic parameter analysis • Farmer's centric input need to be provided.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 6 per year 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year 7. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created	

SANGAMNERI GOAT FIELD UNIT
MPKV, RAHURI, MAHARASHTRA

TRAINING AND AWARENESS CAMP

VISIT OF HON'BLE DG, ICAR

VACCINATION

UPGRADED FLOCK WITH SANGAMNERI BUCK

DEWORMING CAMP

DEMONSTRATION OF RECORDING OF BODY WEIGHTS

SIROHI GOAT FARM UNIT
ICAR-CSWRI, AVIKANAGAR, RAJASTHAN

KID'S PARK AT SIROHI UNIT

VISIT OF HON'BLE DG & DDG

VISIT OF HON'BLE DG TO SIROHI UNIT

VISIT OF DIRECTOR CIRG TO SIROHI UNIT

FARMER WITH SIROHI GOAT

VISIT OF INCHARGE AICRP

Sirohi Goat Farm Unit , ICAR-CSWRI, Avikanagar, Rajasthan PI - Dr. S.S. Misra, Senior Scientist (AG&B) **PC'S evaluation:** (Very Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constrain t s/shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages. • Distribution of selected buck for genetic improvement. • Data analysis & interpretation. • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field. ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/Meet ing Conducted. ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• The Overall mortality rate was was 2.06%. • The population growth over the year was 88.67. • The kidding rate was 1.13. • The breeding efficiency was 88.55% and 90.63%, on the basis does tupped. • The kidding percentage was 100.39% on the basis does tupped. • A total of 148 animals comprising of 85 males and 63 females were sold to the progressive farmers, Government and non-government agencies. 3208 animals covered with ET, FMD, and PPR Vaccination during the year.	• Genetic parameter estimation • Performance goat in the registered farmer's flock. • Technology adoption rate. • Training Programme participation and publication • Package and practices for Sirohi Goat	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 4-8 per year 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year 7. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature Provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 5 per year	

Sirohi Field Unit, Veterinary Collage, Vallabhnagar PI - Dr. R. K. Nagda, Dean and Professor (LPM) **PC'S Evaluation:** (Very Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints/shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• The population growth was 77.06%. • Total 31 breeding bucks were distributed to registered farmers for genetic improvement in the field. • 78.41% breeding efficiency were observed on basis of does available. • Kidding rate was 1.07%. • The overall mortality was 313 %. • Preventative health care was carried out by deworming of 4111 animals, ecto-parasiticide Deeping 4858, ET vaccination 2102& 1543 PPR vaccination was done. • 576 animals were sold during report period. Out of which 499 (86.63%) animals were sold for breeding purpose. • 4 training has been organized.	• Distribution of animals in each cluster is not provided. • No information on Training programme conducted. • TSP details should be provided separately. • Technology adoption rate need to be analaysed. • Farmer's centric input need to be provided.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year. 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year. 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25per year. 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year. 5. Capacity building of goat keepers and stake holders (No. of trainings) = 4-8 per year. 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year. 7. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 5 per year.	

SIROHI GOAT FIELD UNIT
VETERINARY COLLEGE, VALLABHNAGAR

TRAINING PROGRAMME

FARMER'S CENTRIC DISTRIBUTION (WATER BOTTLE)

PROGRESSIVE FARMERS

DEWORMING

SIROHI GOAT

RECORDING OF BODY WEIGHT

SURTI GOAT FIELD UNIT
NAU, NAVSARI, GUJRAT

AUTOMATIC DRENCHER DEMO

HAIR CLIPPING CIRCUMVENTATION

CHAFF CUTTER DEMONSTRATION

NON CONVENTIONAL FEEDING

SUB CENTER VAPI CLUSTER

RECORDING OF BODY WEIGHT

Surti Field Unit, N.A.U., Navsari, Gujarat PI - Dr. K.K. Tyagi, Assistant Professor (AG&B) **PC'S Evaluation:** (Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints/shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages. • Distribution of selected buck for genetic improvement. • Data analysis & interpretation. • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field. ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/Meeting Conducted. ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• Population growth was 128.24%. • Total 33 breeding bucks were provided to goat farmers of adopted villages. • Overall mortality was 3.06%. • The kidding rate (litter size) was 2.05. • 6 trainings have been organized. • 229 farmers were trained. • 203 animals were dewormed, mineral mixture and antibiotics were also used. • Around 170 doses of FMD, PPR and HS vaccine had been given to the goats. • Significant increase in 90 and 150 day milk yield had been observed.	• Genetic parameter estimation. • Technology adoption rate • Baseline data from each new cluster and farmers • Farmer's centric input need to be provided. • Doe productivity data need to be provided. • Not provided any information during the year.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000per year. 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year. 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year. 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year. 5. Capacity building of goat keepers and stake holders (No. of trainings) = 4-8 per year. 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year. 7. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) = 5 per year.	

Uttrakhand Goat Field Unit, GBPUA&T, Pantnagar **PI -** Dr. R.K. Sharma, Professor (AB&B) **PC'S Evaluation:** (Very Good)				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints/shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Performance Recording • Performance recording of production & reproduction trait in the adopted villages • Distribution of selected buck for genetic improvement. • Data analysis & interpretation • ***GMIS Data upload*** ***Technology developed*** • Demonstration of technologies in the farmer's field ***Technology transfer*** • Field demonstration/ Health Camp/ Exposure Visit/ Literature Provided/Goshti/Meeting Conducted ***Capacity Building*** • Providing skills to farmers for scientific goat farming. ***Publication*** Paper/Article/Abstract/ Book/Leaflet pamphlet • ***Linkage created*** • ***Other prioritized activities***	• The population growth over the year was 48.18%. • 27 'Pantja' bucks were distributed. • The mortality in the total flock was 11.07%. • The kidding rate was 1.53 %. • 04 Goat Awareness training programs were organized wherein 204 farmers were trained. • The vaccinated animal was 1758 PPR, 1041 ET, 1552 FMD and 1687 deworming.	• Recording & performance data details need to be provided • Cluster distribution not provided. • Genetic parameter estimation. • Tagging should be completed in adopted village. • Buck distribution should be more in number in adopted village.	1. Selection of clusters & farmers and Registration of adult doe (No. of animals) = 2000 per year. 2. Animal Identification, pedigree and performance recording (No. of animals) = 1000 per year. 3. Selection of male kids and distribution for breeding purpose (No. of animals) = 20-25 per year 4. Health Coverage with vaccination and deworming etc. (No. of animals) = 2000 per year 5. Capacity building of goat keepers and stake holders (No. of trainings) = 4-8 per year. 6. Semen doses cryo-preserved for in situ / ex situ conservation of important breeds (No.) = 1000 per year. 7. Field demonstration/ Health Camp/ Exposure Visit/ Seasonal Advisory/ Literature provided/ Goshti/Meeting Conducted/ General Awareness Created (No. of trainings/camp to be organize) =5 per year.	

UTTRAKHAND LOCAL GOAT FIELD UNIT
GBUPA&T, PANTNAGAR, UTTARAKHAND

TRAINING OF GOAT FARMERS

BUCK DISTRIBUTION

FEEDING MANAGEMENT

DISTRIBUTION MINERAL MIXTURE TO FARMERS

CASTRATION OF SCRUB BUCKS

TAGGING ADOPTED VILLAGES

3. Financial/Administrative performance of AICRP on Goat Improvement 2017-18

BUDGET ALLOCATION AND FUND PROVISIONS

For the financial year 2017-18, a total of ₹. 492.00 lakhs was allocated as RE by ICAR New Delhi.

Table 7: Comprehensive Head wise RE for the financial year 2017-18

S. No.	Head / Sub-Head	Other than NEH	NEH	TSP	Total
	CAPITAL				
1	Works	0.00	0.00	0.00	**0.00**
A.	Land	0.00	0.00	0.00	**0.00**
B.	Building	0.00	0.00	0.00	**0.00**
(i)	Office building (Goat Sheds etc)	0.00	0.00	0.00	**0.00**
(ii)	Residential building	0.00	0.00	0.00	**0.00**
(iii)	Minor works	35.00	0.00	0.00	**35.00**
2	(Livestock Related)	42.00	0.00	0.00	**42.00**
3	Information Technology	5.00	0.00	0.80	**5.80**
4	Library books & Journals	0.00	0.00	0.00	**0.00**
5	Vehicles & Vessels	0.00	0.00	0.00	**0.00**
6	Livestock	40.00	0.00	0.00	**40.00**
7	Furniture & fixtures	8.00	0.00	0.00	**8.00**
8	Others	0.00	0.00	00.00	**00.00**
	REVENUE	**130.00**	**0.00**	**0.80**	**130.80**
1	Establishment Expenses				
A.	Salaries	0.00	0.00	0.00	**0.00**
(i)	Establishment Charges	0.00	0.00	0.00	**00.00**
(ii)	Wages	0.00	0.00	0.00	**0.00**
(iii)	Overtime allowances	0.00	0.00	0.00	**0.00**
B.	Pension & other retirement benefits	0.00	0.00	0.00	**0.00**
C.	Loans & advances	0.00	0.00	0.00	**0.00**
2	**Travelling allowances**				
A.	Domestic TA / Transfer TA	25.00	0.00	0.00	**25.00**
B.	Foreign TA	0.00	0.00	0.00	**0.00**
3	**Research & Operational Expenses**	0.00	0.00	0.00	**0.00**
A.	Research expenses	200.00	0.00	0.00	**200.00**
B.	Operational expenses (Salary of RA/SRF/Contractual Staff)	100.00	25.00	11.20	**136.20**
4	Administrative expenses	0.00	0.00	0.00	**0.00**
A.	Infrastructure	0.00	0.00	0.00	**0.00**
B.	Communication	0.00	0.00	0.00	**0.00**
C.	Repairs & maintenance	0.00	0.00	0.00	**0.00**
(i)	Equipments, vehicles & others	0.00	0.00	0.00	**0.00**
(ii)	Office building	0.00	0.00	0.00	**0.00**

(iii)	Residential building	0.00	0.00	0.00	**0.00**
(iv)	Minor works	0.00	0.00	0.00	**0.00**
D.	Others (excluding TA)	0.00	0.00	0.00	**0.00**
5	Miscellaneous expenses	0.00	0.00	0.00	**0.00**
A.	HRD	0.00	0.00	0.00	**0.00**
B.	Other items (Capacity Building of farmers etc.)	0.00	0.00	0.00	**0.00**
C.	Publicity & Exhibitions	0.00	0.00	0.00	**0.00**
D.	Guest House maintenance	0.00	0.00	0.00	**0.00**
E.	Other miscellaneous	0.00	0.00	0.00	**0.00**
Total - Miscellaneous Expenses		0.00	0.00	0.00	**0.00**
Total Grants in Aid - General		325.00	25.00	11.20	**361.20**
Total Revenue (Grants in Aid-Salaries + Grant in Aid- General)		**455.00**	**25.00**	**12.00**	**492.00**

Table 8 : Head-wise Budget allocation Actual and Expenditure from 2012-18

Head	2012-13 (Actual)	2013-14 (Actual)	2014-15 (Actual)	2015-16 (Actual)	2016-17 (R.E)	2017-18 (R.E)
A. CAPITAL						
1. Works	0.00	5.00	5.00	35.00	0.00	0.00
A. Land	0.00	0.00	0.00	0.00	0.00	0.00
B. Building	0.00	0.00	0.00	0.00	0.00	0.00
(i) Office Building	0.00	0.00	0.00	0.00	0.00	0.00
(ii) Residential building	0.00	0.00	0.00	0.00	0.00	0.00
(iii) Minor works	0.00	5.00	0.00	0.00	12.00	35.00
2. Equipment	0.00	3.00	17.00	15.00	6.00	33.00
3. Information Technology	0.00	0.00	0.00	12.50	0.00	5.80
4. Library Books & Journals	0.00	0.00	0.00	0.00	0.00	0.00
5. Vehicles	0.00	0.00	0.00	0.00	0.00	0.00
6. Livestock	0.00	0.00	0.00	0.00	0.00	40.00
7. Furniture & fixtures	0.00	2.00	4.00	1.00	0.00	8.00
8. Others (specify)	0.00	0.00	0.00	0.00	14.00	0.00
Total Capital (A)	**0.00**	**10.00**	**26.00**	**63.50**	32.00	**121.80**
B. REVENUE						
1. Establish. expenses Salaries	**139.33**	**155.00**	**103.00**	**84.00**	**59.00**	**0.00**
i. Establish. Charges -Regular	139.33	155.00	0.00	0.00	59.00	0.00
ii. Establish. Charges -Arrears	0.00	0.00	0.00	0.00	0.00	0.00
2. Traveling Allowances	**10.52**	**21.00**	**16.00**	**20.75**	**15.00**	**0.00**
a) Domestic T.A.	10.52	21.00	16.00	20.75	15.00	25.00
b) Foreign T.A.	0.00	0.00	0.00	0.00	0.00	0.00
3. Research & Operational Expenses	**124.65**	**160.00**	**186.00**	**275.65**	**258.00**	**0.00**

a) Research	124.65	90.00	0.00	95.65	100.00	200.00
b) Operational	0.00	70.00	0.00	180.00	158.00	136.20
4. Administrative Expenses	**0.00**	**0.00**	0.00	**4.00**	**0.00**	**0.00**
a) Infrastructure	0.00	0.00	0.00	4.00	**0.00**	**0.00**
b) Communication	0.00	0.00	0.00	0.00	**0.00**	**0.00**
c) Repairs & Maintenance	0.00	0.00	0.00	0.00	**0.00**	**0.00**
5. HRD	**0.00**	**7.00**	**0.00**	**0.00**	**0.00**	**0.00**
a) Within India	0.00	7.00	0.00	0.00	**0.00**	**0.00**
b) Abroad	0.00	0.00	0.00	0.00	**0.00**	**0.00**
6. Other items, if any, (specify)	**0.00**	**7.00**	**2.00**	**2.10**	**0.00**	**0.00**
Total Revenue (B)	**274.50**	**350.00**	**307.00**	**386.50**	**273.00**	**0.00**
Grand Total (A+B)	**274.50**	**360.00**	**333.00**	**450.00**	**364.00**	**483.00**

Table 9: Head Wise Unit Wise Revised Estimate for the Financial Year 2017-18

(. in Lakhs)

S. No	AICRP on Goat Improvement	Capital					Estt. Charges	General			Total
		Work	Equip-ment	Information Tech	Live-stock	Others		TA	Contingency		
									General	NEH/ TSP	
1	PC Unit, CIRG, Mathura	2.50	5.05	5.00	0.00	0.50	0.00	4.00	30.20	0.00	**47.25**
2	Andaman Goat Unit, Port Blair	2.00	1.90	0.00	2.50	0.50	0.00	1.50	13.55	0.00	**21.95**
3	Assam Hill Goat Unit	0.00	1.75	0.00	2.00	0.50	0.00	1.00	0.00	25.00	**30.25**
4	Barbari Farm Unit, CIRG	7.80	2.50	0.00	1.00	1.00	0.00	2.00	33.45	0.00	**47.75**
5	Bengal Goat Unit ,Ranchi	0.00	1.90	0.00	2.20	0.40	0.00	1.00	12.38	1.87	**19.75**
6	Black Bengal Goat Unit, Kolkata	0.00	1.90	0.00	2.20	0.40	0.00	1.00	11.93	1.87	**19.30**
7	Changthangi Goat Unit	0.00	1.90	0.00	2.50	0.40	0.00	1.50	13.78	1.87	**21.95**
8	Gaddi Field Unit, Palampur	0.00	1.90	0.80	2.50	0.40	0.00	1.00	13.58	1.87	**22.05**
9	Ganjam Field Unit, OUAT	1.50	1.60	0.00	2.20	0.50	0.00	1.00	13.40	0.00	**20.20**
10	Himalayan Goat Unit, IVRI	1.50	1.90	0.00	2.20	0.50	0.00	1.00	14.00	0.00	**21.10**
11	Jamunapari Farm Unit, CIRG	7.90	2.50	0.00	1.00	0.50	0.00	2.00	33.85	0.00	**47.75**
12	Malabari Field Unit, Kerala	2.00	1.90	0.00	2.50	1.00	0.00	1.00	13.35	0.00	**21.75**
13	Marwari Field Unit,Bikaner	1.00	1.90	0.00	2.50	0.50	0.00	1.00	12.80	0.00	**19.70**
14	Osmanabadi Unit, NARI	1.00	1.90	0.00	2.50	0.50	0.00	1.00	13.80	0.00	**20.70**
15	Sangamneri Field Unit, Rahuri	1.00	1.90	0.00	2.50	0.50	0.00	1.00	13.80	0.00	**20.70**
16	Sirohi Farm Unit, Avikanagar	3.30	1.90	0.00	2.50	0.50	0.00	1.00	18.45	0.00	**27.65**
17	Sirohi Field Unit, Vallabhnagar	1.00	1.90	0.00	2.50	0.50	0.00	1.00	12.54	1.86	**21.30**
18	Surti Field Unit, N.A.U, Navsari	1.50	1.90	0.00	2.50	0.40	0.00	1.00	11.29	1.86	**20.45**
19	Uttrakhand Goat Unit, Pantnagar	1.00	1.90	0.00	2.20	0.50	0.00	1.00	13.85	0.00	**20.45**
	Total	**35.00**	**40.00**	**5.80**	**40.00**	**10.00**	**0.00**	**25.00**	**300.00**	**36.20**	**492.00**
		130.80					**0.00**	**361.20**			

Annexure II

AICRP on Goat Improvement
ICAR-Central Institute for Research on Goats
Makhdoom, Farah, Mathura 281122 UP, India

F. No. 10-42(PC)/2016-17 **Proceedings** Dated: June 16, 2017

The 17th Annual Review Meet (ARM) of ICAR-AICRP on Goat Improvement held at *High Mountain Arid Agriculture Research Institute, SKUAST-K, Leh-Ladakh-194101*
June 12-13, 2017

The 17th Annual Review Meet of AICRP on Goat Improvement was held on June 12-13, 2017 at HMAARI, SKUST-K, Stakna, Leh – Ladakh. The inaugural session was held on June 12, 2017 in the conference Hall of the HMAARI. It was chaired by Prof. Nazir Ahmed, Hon'ble Vice Chancellor, SKUAST-K. Dr. Sonam Dawa Lompo, CEC, LAHDC, Leh was the CHIEF GUEST and Dr J. K. Jena, DDG (AS), ICAR was the special guest. The inaugural session was attended by Dr. R. S. Gandhi, ADG (AP&B), ICAR. Dr. M.S. Chauhan, Director, ICAR-CIRG, Makhdoom, Prof. M.Y. Zargar, Director Research, SKUAST-K, Dr. Vineet Bhasin, Principal scientist, ICAR, New Delhi, Dr. P. K. Rout, Incharge, AICRP on Goat Improvement along with unit incharges of different AICRP units, other university officials, farmers and students.

The inaugural session started with a formal welcome of dignitaries by Prof. M. Y. Zargar, Director Research, SKUAST-K. The Director ICAR-CIRG, Dr. M. S. Chauhan, provided an overview of AICRP on Goat improvement as well as the role of goats in livelihood security of poor people, future prospects as industry, nutritional and medicinal attributes of goat products. Dr. Arjava Sharma, Director, NBAGR, Karnal emphasised to initiate breeding programme for goat breeds in different agro-climatic zones. Dr. R. S. Gandhi, ADG (AP&B) overviewed the livestock biodiversity in Ladakh region and importance of goat milk and urine. Dr J. K. Jena, DDG (AS), ICAR focused on the initiating work on the remaining goat breeds of India under the project as well as developing value chain in goat and development of goat based business models suitable for different farming system. Prof. Nazir Ahmed, Hon'ble Vice Chancellor, SKUAST-K emphasised the importance of livestock as a component in integrated farming system in cold arid mountain region. He also high-lighted the economic value of pashmina goat and fibre. Dr. Sonam Dawa Lompo, CEC, LAHDC, Leh highlighted the importance of goat with respect to other livestock species in Ladakh region. He also emphasized the need for pasture land development in Leh region and provided integrated solution for livelihood security.

The programme was followed by release of publications, Project Coordinator's report and bulletin on Kid Management, Silage making by Changthangi Goat Unit. Dr. N. A. Ganai, ADR (AS), SKUAST-K proposed vote of thanks followed by group photograph of all the participants.

The ***technical session I*** was chaired by Dr J. K. Jena, DDG (AS) and Co-chaired by Dr. R. S. Gandhi, ADG (AP&B), ICAR and Dr. M. S. Chauhan, the Director, ICAR- CIRG, Mathura. The session

started with presentation of project coordinator report by Dr. P. K. Rout, I/c AICRP on Goat improvement with brief introduction of the programme, action taken report on 16th ARM Proceedings, salient achievement, impact, monitoring, evaluation, deliverables during 2017-2020 and future action plan. He also presented the various updated features in Goat Production Management Information System (GMIS). He also discussed about the **"Expert System**" created for AICRP on Goat Improvement as well as the initiation of "**Seasonal Advisory via SMS**" in their local languages to all the registered farmers under the project.

The Progress reports of all the field units were presented in the ***technical section II.*** The following field units presented progress report : (i) Andaman Goat Field Unit, ICAR-CARI, Port Blair, (ii) Assam Hill Goat Field Unit, AAU, Khanpara, Guwahati, (iii) Black Bengal Field Unit, Kolkata, (iv) Black Bengal Field Unit, Ranchi, (v) Changthangi Goat Field Unit, SKUAST-K, Leh (J&K), (vi) Gaddi Field Unit Palampur, (vii) Ganjam Field Unit, Bhuvneshwar, (viii) Himalayan Local Goats Field Unit, IVRI, Mukteswar. Dr. M. K. Singh, Dr. Mahesh Dige, Dr. Thiruparthy V. & Dr. K. K. Tyagi were the rapporteurs for different sessions.

On ***June 13, 2017 technical session II*** was chaired by Dr. R. S. Gandhi, ADG (AP&B), ICAR and Dr. M. S. Chauhan, Director, ICAR- CIRG and Co-chaired by Dr. Vineet Bhasin, Principal Scientist, ICAR. The session continued with the presentation of the remaining field unit's i.e (ix) Malabari Field Unit, Mannuthy, (x) Marwari Field Unit, Bikaner, (xi) Osmanabadi Field Unit, Phaltan, (xii) Sirohi Field Unit Vallabhnagar, (xiii) Surti Field Unit, Navsari and (xiv) Uttarakhand Local Goats Field Unit, GBPUA&T, Pantnagar.

The farm units namely Barbari Farm Unit, ICAR-CIRG, Makhdoom, Jamunapari Farm Unit, ICAR-CIRG, Makhdoom and Sirohi Farm Unit and ICAR-CSWRI, Avikanagar presented the progress report for the year 2016-2017 during the third session.

A field visit was also organised to Kharnak/ Samad cluster of Changthani Goat field unit on June 14, 2017. The following recommendations were emerged during presentation in the form of suggestion and comments.

MAJOR RECOMMENDATIONS :

1. It is necessary to develop mission mode programme on knowledge based goat farming, database development in different aspects of goat production and developing value chain on goat production. The output of the project need to be reflected as research papers, technology development and adoption of technology. The funding source (AICRP) should be acknowledged for each publication, patent and product.
2. Milk nutrient profiling of all breeds should be carried out in collaboration with CIRG.
3. It is necessary to estimate genetic gain over the years and flock productivity. Moreover, estimation of genetic parameters and selection differential should be carried out.
4. Milk yield should be recorded in each breed as it is essential for survival of kids and also to assess milk production status and potential of each breed. Milk yield should be recorded in kilogram rather than liter. The formula for milk yield calculation needs to be provided by the PC Unit.
5. It is necessary to quantify the effect of technological intervention & how much each intervention is contributing towards income generation and sustainable goat production.

6. Standard operating procedure (SOP) for data recording on growth & milk yield needs to be defined. Goat Cooperatives should be formulated for more income, genetic improvement and horizontal dissemination of technologies among goat keepers.
7. FAMACHA for all the units should be developed.
8. Artificial insemination with fresh and frozen semen on experimental basis should be conducted at the places where facilities are available.
9. Establishment of multiplier flocks for genetic improvement should be encouraged and popularized.
10. Manpower pattern should be uniform in all the units and at least one data enumerator for one village should be appointed on contractual basis. The remuneration for enumerator will be Rs. 10,000/-per month or as per minimum rate fixed by respective state government. Direct e-transfer should be encouraged, while paying the dues and working personal in the project.
11. Reporting to PC Unit should be carried out regularly within the time frame. Hard copy of published research papers, patent information and product details should be provided by each unit to PC Unit at CIRG.
12. Publication with respect to package of management practices should be completed by all the units during this year.

UNIT-WISE RECOMMENDATIONS:

1. Andaman Goat Field Unit, ICAR- CIARI, Port Blair, Andaman & Nicobar Island

The report was presented by Dr. Jai Sunder, PI of Andaman Goat Field Unit. Following recommendations have been made.

i. Body weight of does needs to be improved or mating of does should be delayed.
ii. Intervention during last stages of pregnancy by providing flushing and mineral mixture in order to reduce kid mortality below 10%.
iii. Include one more cluster.
iv. The effort should be made to develop specific management strategy for goats during rainy season.
v. Milk yield recording should be carried out.
vi. Check the data reporting in different tables for necessary modification.
vii. Technology adoption rate should be accessed.
viii. Baseline data & production system characterization should be carried out.
ix. The performance of the unit was satisfactory.

2. Assam Hill Goat Field Unit AAU, Khanpara, Guwahati, Assam

The report was presented by Dr. N. Nahardeka, PI of Assam Hill Goat Field Unit, AAU, Khanpara Guwahati, Assam. Following recommendations have been made.

I. Selection criteria for goat colour should be as per breed characteristic / market demand.
ii. Check the data on total birth during the year and birth weight recording during the year.
iii. Management of inbreeding in flock should be carried out effectively.

iv. The appropriate technologies should be demonstrated in the farmer's flock during different season.
v. Milk yield recording should be carried out.
vi. Maintain the details of exchange of bucks between clusters.
vii. Check the data reporting in different tables for necessary modification.
viii. Technology adoption rate should be accessed.
ix. Baseline data & production system characterization should be carried out.
x. The performance of the unit was satisfactory.

3. Black Bengal Goat Field Unit, WBUV and FS, Kolkata, West Bengal, Kolkata

The report was presented by Dr. Manorajan Roy, PI of Black Bengal Goat Field Unit, WBUAFS, Kolkata. Following recommendations have been made.

i. Milk yield recording should be carried out.
ii. Per doe productivity needs to be improved.
iii. Effective distribution of bucks should be carried out.
iv. Strategic supplementation should provide during pregnancy stage.
v. Linkage with KVK and other organization needs to be strengthened.
vi. Maintain the details of exchange of bucks between clusters.
vii. Check the data reporting in different tables for necessary modification.
viii. Technology adoption rate should be accessed.
ix. Baseline data & production system characterization should be carried out.
x. Performance was not satisfactory.

4. Black Bengal Field Unit, BAU, Kanke, Ranchi, Jharkhand

The report was presented by Dr. Sushil Prasad, PI of Black Bengal Field Unit, Ranchi. Following recommendations have been made.

i. Data needs to be re-analyzed.
ii. Data recording should be improved.
iii. Maintain the details of exchange of bucks between clusters.
iv. Check the data reporting in different tables for necessary modification.
v. Technology adoption rate should be accessed.
vi. Baseline data & production system characterization should be carried out.
vii. Performance was poor.

5. Changthangi Goat Field Unit, SKUAST, Kashmir, Leh-Ladakh, Jammu & Kashmir

The report was presented by Dr. Feroz Seikh, PI of Changthangi Goat Field Unit. Following recommendations have been made.

i. Mention the selection criteria by which bucks will be selected to increase the pashmina yield.
ii. Intervention to increase the doe weight at mating is necessary.

iii. The males from Choumor and koyul clusters need to be procured and distributed in other cluster for improved fiber diameter.

iv. Production performance of breeding bucks should be analyzed.

v. Weaning weight is less and adopts some good practices to improve the same.

vi. Develop criteria for selection of bucks based on pashmina yield and quality. Needs to define and implement the same.

vii. Milk recording should be done in at least 100 does per year.

viii. Technology adoption rate should be accessed.

ix. Baseline data & production system characterization should be carried out.

x. The performance of the unit needs to improve.

6. Gaddi Field Unit, HPKVV, Palampur, Himachal Pradesh

The report was presented by Dr. P. K. Dogra, PI of Gaddi Field Unit, HPKVV, Palampur, Himachal Pradesh. Following recommendations have been made.

i. Milk yield recording should be carried out.

ii. Maintain the details of exchange of bucks between cluster.

iii. *Genetic parameter estimation should be carried out.*

iv. Develop farmer's specific kit during migration of Gaddi goats.

v. Technology adoption rate should be accessed.

vi. Baseline data & production system characterization should be carried out.

vii. The performance of the unit was satisfactory.

7. Ganjam Field Unit, OUAT, Bhubaneswar, Orissa

The report was presented by Dr. D. K. Karna, PI of Ganjam Field Unit. Following recommendations have been made.

i. Implement all the suggestion during field visit (April, 2016) within 3 months.

ii. Quarterly process report to the head quarter regarding implementation of recommendation.

iii. Budget utilization is poor.

iv. Milk yield recording should be carried out.

v. Technology adoption rate should be accessed.

vi. Baseline data & production system characterization should be carried out.

vii. The performance of the unit is not satisfactory.

8. Himalayan Goat Field Unit, ICAR-IVRI Campus, Mukteshwar, Uttrakhand

The report was presented by Dr. C. K. Jana, PI of Himalayan Goat Field Unit. Following recommendations have been made.

i. Tagging, effective recording and implementation of technical programme should be carried out by July 30, 2016.

ii. The genetic group detail description should be provided.
iii. Buck distribution should be taken up immediately.
iv. Target Kid mortality below 5% and weaning weight not less than 9 kg.
v. Less no. of data is collected. Try to compare with Pantja Goat Genotype.
vi. Proper selection criteria should be developed.
vii. Technology adoption rate should be accessed.
viii. Baseline data & production system characterization should be carried out.
ix. The performance of the unit needs to improve.

9. Malabari Field Unit, KV&ASU, Mannuthy, Thrissur, Kerala

The report was presented by Dr. Thirupathy Venkatachalapathy, PI of Malabari Field Unit, Thrissur presented the report. Following recommendations were made.

i. Need to identify more no. of BPL farmers and register them.
ii. Write down success stories on "Goat as a companion animal."
iii. Importance of goat milk and urine need to be highlight.
iv. Technology adoption rate should be accessed.
v. Baseline data & production system characterization should be carried out.
vi. Technology adoption rate should be accessed.
vii. Baseline data & production system characterization should be carried out.
viii. The performance is satisfactory.

10. Marwari Field Unit, RAJUVAS, Bikaner, Rajasthan

The report was presented by Dr. G. C. Gahlot, PI of Marwari Field Unit. Following recommendations have been made.

i. Problem in selection differential data (population mean).
ii. Tagging and identification of animals
iii. Total birth and birth weight should be recorded.
iv. Milk yield data – effective management tips to manage abortion in the field.
v. Data analyzed needs to be rechecked.
vi. Technology adoption rate should be accessed.
vii. Baseline data & production system characterization should be carried out.
viii. The Performance of Unit was poor.

11. Osmanabadi Goat Field Unit, NARI, Phaltan, Maharashtra

The report was presented by Dr. Chanda Nimbkar, PI of the project. Following recommendations were made.

i. Twelve month body weight recording should be carried out and adequate no. of animals should be covered and must be reported during the next meeting.

ii. Morbidity and mortality recording should be reported properly.

iii. Exchange of technology between units.

iv. Technology adoption rate should be accessed.

v. Baseline data & production system characterization should be carried out.

vi. The performance of the unit was satisfactory.

12. Sangamneri Goat Field Unit, MPKV, Rahuri, Maharashtra

The report was presented by Dr. S. Mandakmale, PI of Sangamneri Goat Field Unit. Following recommendations were made.

i. Birth weight should be recorded.

ii. Effective management tips in farmer's flock to manage the abortion.

iii. Birth weight should be recorded.

iv. Selection differential is not calculated properly.

v. Redeploy the staff from AICRP Unit to the university.

vi. Technology adoption rate should be accessed.

vii. Baseline data & production system characterization should be carried out.

viii. The performance of the unit was satisfactory.

13. Sirohi Field Unit, RAJUVAS, Vallabhnagar, Rajasthan

The report was presented by Dr. R.K. Nagda, PI of Sirohi field unit. Following recommendations were made.

i. The unit should produce and supply more number of elite bucks to farmers and other agencies.

ii. This unit should actively collaborate with Sirohi Farm Unit at CSWRI, Avikanagar.

iii. Technology adoption rate and inbreeding should be checked in field flock.

iv. Technology adoption rate should be accessed.

v. Baseline data & production system characterization should be carried out.

vi. The performance was observed to be satisfactory.

14. Surti Goat Field Unit, N.A.U., Navsari, Gujarat

The report was presented by Dr. K. K. Tyagi, PI of the Surti Goat Field unit. Following recommendations were made.

i. *Need to address the problem of pneumonia during winter.*

ii. *Define the selection criteria of Surti goats in field flock.*

iii. Technology adoption rate should be accessed.

iv. Baseline data & production system characterization should be carried out.

v. The performance of the unit was satisfactory.

15. Uttrakhand Goat Unit, GBPUA&T, Pantnagar, Uttrakhand

The report was presented by Dr. R. K. Sharma, PI of the Uttrakhand Goat Unit. Following recommendations were made.

i. Tagging of animals should be done till June.
ii. Mortality should be reduced to less than 10%.
iii. Data needs to corrected and re-analyzed.
iv. Recording of each and every observation from the field.
v. Technology adoption rate should be accessed.
vi. Baseline data & production system characterization should be carried out.
vii. Milk yield recording to be rechecked and breed potential to be evaluated.
viii. The performance of the unit needs to improve.

16. Barbari Farm Unit, ICAR-CIRG Makhdoom, Makhdoom, Farah, Mathura

The report was presented by Dr. M.K. Singh, PI of Barbari unit presented the report. The comparative performances over the years were presented. Following recommendations were made.

i. Genetic trend in milk yield and body weight.
ii. Strengthening of Multiplier flocks define the selection objectives of the project and justification for the contingency AICRP.
iii. Estimation of variance and co-variance components.
iv. Performance was satisfactory.

17. Jamunapari Farm Unit, ICAR-CIRG, Makhdoom, Farah, Mathura

The report was presented by Dr. M. S. Dige, Co-PI of the project. The comparative performances over the years were presented. Based on the discussions following recommendations were made.

i. Performance recording needs to be carried out in adopted flocks by employing data enumerators.
ii. The performance of the unit was satisfactory.

18. Sirohi Farm Unit, ICAR- CSWRI, Avikanagar, Rajasthan

The report was presented by Dr. S. S. Misra, PI of the Sirohi farm unit. The following recommendations were made.

I. The unit needs to improve the performance of animals.
ii. The unit needs to improve the housing and staff constraints.
iii. The unit should actively collaborate with Sirohi field unit at Vallabhnagar.
iv. The Unit has to immediately adopt farmers and two–three KVK's for validation of technologies and breed improvement in farmers flock.
v. The performance of the unit was satisfactory.

16th Annual Review Meet ended with vote of thanks by I/C PC Dr. P. K. Rout. On this occasion Hon'ble ADG and Director CIRG gave their blessings to all units.

List of Participants

S.No.	Name of Participant
1.	Dr. Sonam Dawa Lompo, CEC, LAHDC, Leh
2.	Dr. J. K. Jana, DDG (AS), ICAR, New Delhi
3.	Dr. R S Gandhi, ADG (AP&B), ICAR, New Delhi
4.	Dr. Vineet Bhasin, Principal Scientist(AG&B) , ICAR, New Delhi
5.	Dr. Arjava Sharma, Director, NBAGR, Karnal
6.	Dr. M. S. Chauhan , Director , ICAR-CIRG, Makhdoom, Farah, Mathura
7.	Prof. M. Y. Zargar, Director Research, SKUAST-K, Leh
8.	Prof. Nazir Ahmed, Hon'ble Vice Chancellor, SKUAST-K, Leh
9.	Dr. N. A. Ganai, ADR (AS), SKUAST-K, Leh
10.	Dr. T. H. Masoudi, ADR, HMAARI, SKUAST-K, Leh
11.	Dr. P. K. Rout, I/C AICRP, CIRG, Makhdoom, Farah, Mathura
12.	Dr. Jay Sundar, Andaman Goat Field Unit, ICAR- CIARI, Port Blair, Andaman & Nicobar Island
13.	Dr. N. Nahardeka, Assam Hill Goat Field Unit AAU, Khanpara, Guwahati, Assam
14.	Dr. Manorajan Roy, Black Bengal Goat Field Unit, WBUV and FS, Kolkata, West Bengal, Kolkata
15.	Dr. L.B. Singh, Black Bengal Field Unit, BAU, Kanke, Ranchi, Jharkhand
16.	Dr. F. D. Sheikh, Changthangi Goat Field Unit, SKUAST, Kashmir, Leh-Ladakh, J & K
17.	Dr. P. K. Dogra, Gaddi Field Unit, HPKVV, Palampur, Himachal Pradesh
18.	Dr. D. K. Karna, Ganjam Field Unit, OUAT, Bhubaneswar, Orissa
19.	Dr. C. K. Jana, Himalayan Goat Field Unit, ICAR-IVRI Campus, Mukteshwar, Uttrakhand
20.	Dr. Thiruparthy Venkatechalapathy, Malabari Field Unit, KV&ASU, Mannuthy, Thrissur, Kerala
21.	Dr. G.C. Gahlot, Marwari Field Unit, RAJUVAS, Bikaner, Rajasthan
22.	Dr. Chanda Nimbkar, Osmanabadi Goat Field Unit, NARI, Phaltan, Maharashtra
23.	Dr. Sanjay Mandakmale, Sangamneri Goat Field Unit, MPKV, Rahuri, Maharashtra
24.	Dr. R. K. Nagda, Sirohi Field Unit, RAJUVAS, Vallabhnagar, Rajasthan
25.	Dr. Kuldeep Tyagi, Surti Goat Field Unit, N.A.U., Navsari, Gujarat
26.	Dr. Brijesh Singh, Prof ,Uttarakhand Goat Unit, GBPUA&T, Pantnagar, Uttarakhand
27.	Dr. B. N. Shahi, Asstt. Prof. GBPUA&T, Pantnagar, Uttarakhand
28.	Dr. M. K. Singh, Barbari Farm Unit, ICAR-CIRG, Makhdoom, Farah, Mathura
29.	Dr. Mahesh Dige, Scientist, PC Unit, ICAR-CIRG, Makhdoom, Farah, Mathura
30.	Dr. S.S. Misra, Sirohi Farm Unit, ICAR-CSWRI, Avikanagar, Rajasthan
31.	Miss Kaniz Fatima, SRF, AICRP on Changthangi Goat Unit
32.	Dr. A Hussain, SRF, AICRP on Changthangi Goat Unit

AICRP TEAM

Shephered Woman of Himachal 'Gaddan', by Sobha Singh

PROJECT COORDINATOR UNIT

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